



I-495 & I-270 Managed Lanes Study

Cultural Resources Technical Report Volume 8:

PHASE I ARCHAEOLOGICAL SURVEY OF THE RFP-4 CABIN BRANCH, RFP-6 MILL SWAMP, AND AN-6 AND AN-7 PAINT BRANCH STREAM MITIGATION SITES FOR THE I-495/I-270 MANAGED LANES STUDY ANNE ARUNDEL, CHARLES, AND PRINCE GEORGE'S COUNTIES, MARYLAND

January 2022

Maryland Department of Transportation State Highway Administration
Archaeological Report Number 561

Prepared by:



For



U.S. Department
of Transportation

**Federal Highway
Administration**

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

REPOSITORIES FOR SHA ARCHEOLOGICAL REPORTS

Department of Anthropology

The American University
Battelle - Tompkins, Room T-21
4400 Massachusetts Avenue, N.W.
Washington, D.C. 20016-8003

Department of Anthropology

Marist Hall, Room 8
Catholic University of America
Washington, D.C. 20064

Maryland Historical Trust

Department of Planning
100 Community Place
Crownsville, MD 21032-2023

Jefferson Patterson Park & Museum

10515 Mackall Road
St. Leonard, MD 20685

National Park Service

Regional Archeology Program Laboratory
Museum Resources Center
3300 Hubbard Road
Landover, MD 20785

St. Mary's City Commission

Archeology Division
P.O. Box 39
St. Mary's City, MD 20686

Edward H. Nabb Research Center for Delmarva History and Culture

Salisbury State University
1101 Camden Ave., PP 190
Salisbury, MD 21801

Anthropology & Environmental Studies

Washington College
300 Washington Avenue
Chestertown, MD 21620

Delaware State Historic Preservation Office

#15 The Green
Dover, DE 19901

Bureau for Historic Preservation

Pennsylvania Historical Museum Commission
400 North Street
Harrisburg, PA 17120-0093

Virginia Museum of Natural History

21 Starling Avenue
Martinsville, VA 24112

West Virginia Division of Culture and History

Research Library and Archives
Grave Creek Mound Archaeological Complex
P.O. Box 52
Moundsville, WV 26041-0527

New Jersey Dept. of Environmental Protection

Historic Preservation Office
Mail Code 501-04B
P. O. Box 420
Trenton, NJ 08625-0420

Fairfax County Park Authority

James Lee Center
2855 Annandale Road
Falls Church, VA 22042

Maryland National Capital Park and Planning Commission

Office of History and Archaeology
Needwood Mansion
6700 Needwood Road
Derwood, MD 20855
(Montgomery County reports only)

Maryland National Capital Park and Planning Commission

Natural and Historic Resources Division
801 Watkins Park Drive
Upper Marlboro, MD 20772
(Prince George's County reports only)

C&O Canal National Historic Park

National Park Service
Resources Management
142 W. Potomac Street
Williamsport, MD 21795
(Allegany Co. and Washington Co. reports only)

Anne Arundel County Department of Planning & Code Enforcement

Heritage Office Center
2664 Riva Road
MS-6402
Annapolis, MD 21401
(Anne Arundel Co. reports only)

St. Mary's County Office of Planning and Zoning

P.O. Box 653
Leonardtown, MD 20650
(St. Mary's Co. reports only)

FINAL

**PHASE I ARCHAEOLOGICAL SURVEY OF THE
RFP-4 CABIN BRANCH, RFP-6 MILL SWAMP, AND AN-6
AND AN-7 PAINT BRANCH STREAM MITIGATION SITES
FOR THE I-495/I-270 MANAGED LANES STUDY,
ANNE ARUNDEL, CHARLES, AND
PRINCE GEORGE'S COUNTIES, MARYLAND**

**MDOT SHA Archaeological Report No. 561
Project No. AW073A13
Volume 8**

Submitted to:

MARYLAND DEPARTMENT OF TRANSPORTATION'S
STATE HIGHWAY ADMINISTRATION
707 North Calvert Street
Baltimore, Maryland 21202

Submitted by:

TRC ENVIRONMENTAL CORPORATION
50101 Governors Drive, Suite 250
Chapel Hill, North Carolina 27517

Heather Millis, Principal Investigator

Authored by Heather Millis, Tracy Millis, Jeff Johnson, and Bruce Idol

January 24, 2022

ABSTRACT

TRC Environmental Corporation (TRC), with the assistance of New South Associates, Inc. (NSA), performed Phase I archaeological survey of areas within the Limits of Disturbance (LOD) of four proposed stream mitigation sites, one in Anne Arundel (RFP-4 Cabin Branch), one in Charles (RFP-6 Mill Swamp), and two in Prince George's (AN-6 and AN-7 Paint Branch) counties, in association with the I-495/I-270 Managed Lanes Study (MLS) for the Maryland Department of Transportation's State Highway Administration (MDOT SHA). Archaeology survey areas were delineated within the LOD for each of the four sites by MDOT SHA based on project plans available at the time of this survey; these areas were considered to have a high potential for containing archaeological sites based on the results of the background research. Fieldwork was performed during five field sessions between August 24, 2020 and January 8, 2021 under the direction of Tracy Millis, Jeff Johnson, and Bruce Idol, Field Directors, and Heather Millis, Principal Investigator.

The archaeology survey area for the Cabin Branch site (RFP-4) involved areas along Owens Wilson Branch and Cabin Branch as well as several proposed access roads for a total of 70.1 acres. Archaeological survey was conducted in well-drained, level and gently sloping locations within 50 feet (ft) of the areas that are likely to experience construction disturbance. The archaeological survey for this site included a surface inspection of the entire archaeology survey area and the excavation of a total of 359 shovel tests. The survey identified seven new archaeological resources—five pre-contact isolated find locations, an area containing redeposited historic artifacts, and a historic period site (Table A.1). The isolated pre-contact period finds indicate ephemeral use of the area during the Late Archaic and potentially other pre-contact period(s). Although two of these were not fully delineated outside the LOD, none of the pre-contact isolated finds identified in the survey area offer further research potential. The area of redeposited materials may also extend outside the LOD but lacks research potential. Historic period site 18AN1696 is a low-density scatter of 18th to 20th century artifacts representing intermittent discard primarily within a gully. Phase I investigations did not indicate the presence of a substantial or intact archaeological site within the LOD, and the site is recommended not eligible for the National Register of Historic Places (NRHP). No further investigation of the Cabin Branch site LOD is recommended for this project as currently scoped.

Table A.1. Summary of Archaeological Resources in Cabin Branch Site Archaeology Survey Areas.

Site	Description	Recommendation
18ANX520-1	Quartz Flake	No Further Investigation
18ANX520-2	Rhyolite Flake	No Further Investigation
18ANX520-3	Redeposited Historic Artifact Scatter	No Further Investigation
18ANX520-4	Rhyolite Flake	No Further Investigation
18ANX520-5	Quartzite Core and Quartz Flake	No Further Investigation
18ANX520-6	Late Archaic Small Savannah River PPK	No Further Investigation
18AN1696	Historic Artifact Scatter	Not Eligible for NRHP; No Further Investigation

The Mill Swamp site (RFP-6) archaeology survey area involved four areas along Mill Swamp for a total of 19.6 acres. Archaeological survey was conducted within all well-drained, undisturbed portions of the Mill Swamp site that will be subject to excavation, planting, or other disturbance related to the project, including areas designated for disposal of excavated material. Limited survey was conducted in selected areas not mapped as well drained to ensure adequate coverage of the area. The archaeological survey for the Mill Swamp site included a surface inspection of a majority of the archaeology survey area and the excavation of 173 shovel tests and one 5 × 5 foot (ft) test unit. The survey identified three new archaeological resources—one pre-contact isolated find and two sites containing pre-contact and historic period components (Table A.2). The isolated find indicates limited use of this area during the Early Woodland period but does not offer additional research potential. The boundaries of site 18CH971 extend outside the LOD and the site is considered unassessed for NRHP eligibility; however, resources identified within the

LOD do not appear to offer further research potential. Site 18CH972 lacks the integrity, clarity, and substantial deposits or cultural features that would allow it to provide substantive information in history and is recommended not eligible for the NRHP. No further investigation of the Mill Swamp site LOD is recommended for this project as currently scoped.

Table A.2. Summary of Archaeological Resources in Mill Swamp Site Archaeology Survey Areas.

Site	Description	Recommendation
18CH971	Middle Woodland Lithic Scatter; Early 20 th Century Domestic Site	Unassessed for NRHP; No Further Investigation
18CH972	Early Woodland Lithic Scatter; Late 19 th to 20 th Century Domestic Site	Not Eligible for NRHP; No Further Investigation
18CHX115-1	Early Woodland Calvert PPK	No Further Investigation

The Paint Branch sites (AN-6 and AN-7) archaeology survey area includes proposed stream mitigation staging locations, access roads, and other project elements along Paint Branch at [REDACTED] on United States Department of Agriculture (USDA) Beltsville Agricultural Research Center (BARC) property and one area on Maryland-National Capital Park and Planning Commission (M-NCPPC) property for a total of 19.1 acres. Survey was conducted within all well-drained portions of this site not substantially disturbed by interstate construction, as well as within areas of Codorus and Hatboro soils, which have, in some cases, been found to contain deeply buried archaeological resources despite poor drainage. Two previously documented archaeological sites are located within the LOD (18PR113 and 18PR1133) and one previously recorded site (18PR111) is located adjacent to the LOD.

The Paint Branch sites archaeological survey included the excavation of 281 shovel tests and three 5 × 5 ft test units. The survey relocated two previously recorded resources and identified nine new archaeological resources—five sites with pre-contact period components, four pre-contact isolated finds, one historic isolated find, and one area of redeposited cultural material assigned an isolated find number (Table A.3). Two small archaeological sites (18PR1191 and 18PR1192) produced no temporally diagnostic artifacts; the results do not indicate that either site is able to provide information important in history and no further investigation of these sites is recommended. Two archaeological sites located [REDACTED] within the area of AN-7 (18PR113 and 18PR1190) extend outside the LOD and were not fully delineated; however, results indicate that both sites may be eligible for the NRHP, and avoidance or further investigation of these resources is recommended. The archaeological site located [REDACTED] (18PR111) was also not fully delineated, however, the portion of the site within the LOD does not appear to offer further research potential and no further investigation of this site is recommended for the project as currently scoped. The isolated finds and redeposited materials provide evidence of limited pre-contact and historic period use of this area, and while the boundaries of all locations were not delineated outside the LOD, the investigations were sufficient to show that the resources identified within the LOD are not able to provide information important in history, and no further investigation of those resources is recommended for the project as currently scoped.

Table A.3. Summary of Archaeological Resources in Paint Branch Sites Archaeology Survey Areas.

Site	Description	Recommendation
18PR111	Unidentified Pre-Contact Campsite	Unassessed for NRHP; No Further Investigation
18PR113	Late Woodland Campsite	Potentially Eligible for NRHP; Phase II Investigation
18PR1190	Late Archaic and Late Woodland Campsite	Potentially Eligible for NRHP; Phase II Investigation
18PR1191	Unidentified Pre-Contact Lithic Scatter	Not Eligible for NRHP; No Further Investigation
18PR1192	Unidentified Pre-Contact Lithic Scatter	Not Eligible for NRHP; No Further Investigation
18PRX284-1	One Quartz Flake and One Jasper Flake	No Further Investigation
18PRX284-2	One Rhyolite Flake and One FCR	No Further Investigation
18PRX284-3	Two Quartzite Flakes	No Further Investigation
18PRX284-4	Cut Nail and Brick	No Further Investigation
18PRX284-5	One Schist Flake	No Further Investigation
18PRX284-6	Redeposited Pre-Contact & Historic Artifacts	No Further Investigation

ACKNOWLEDGMENTS

The authors would like to acknowledge the assistance of a number of individuals. In particular, we would like to thank Mr. Richard Ervin of the Maryland Department of Transportation's State Highway Administration (MDOT SHA) for providing information, support, and advice. Jenny Cosham, the Archeological Registrar at the Maryland Historical Trust, is also greatly appreciated for providing key background research materials and assisting with site recordation. We would also like to thank Mr. David Merkey of GreenVest, LLC and Mr. Tom Callsen at the United States Department of Agriculture Beltsville Agricultural Research Center (USDA BARC) for facilitating property access and providing valuable information about the survey areas. The authors would also like to thank Mr. George Meyers of the USDA BARC who also provided valuable information about that survey area.

A number of individuals at TRC and New South Associates, Inc. (NSA) helped to complete this project. Heather Millis served as Project Manager and Principal Investigator; Tracy L. Millis, Jeff Johnson, and Bruce Idol served as Field Directors; and Tyler Caldwell, Crandall Close, Gavin Donathan, Wade Dozier, Hannah Exum, Robert Lyerly, Amanda Meeks, Addison Siemon, Rebecca Sigafoos, and Lori Umberg served as Archaeological Field Technicians for TRC and Brittany Blanchard, Tyler Caldwell, Angelina Cavallo, Scott Gajewski, Ricky Hight, Greg Lamb, Corry Laughlin, Andres Loomer, Joseph Normandy, and Lori Umberg served as Archaeological Field Technicians for NSA. Heather Millis and Chandra Wilson conducted background research. The artifacts were processed and analyzed by Johann Furbacher. The graphics were created by Matt Paré and Heather Millis, and artifact plates were photographed by Hannah P. Smith. Curation preparation was performed by Johann Furbacher and Hannah P. Smith. Paul Webb provided a technical review of the report, Hannah P. Smith assisted with report production, and the report was copyedited by Heather Millis.

This page intentionally left blank.

CONTENTS

ABSTRACT.....	i
ACKNOWLEDGMENTS	iii
LIST OF FIGURES	vii
LIST OF TABLES.....	xi
1. INTRODUCTION	1
2. ENVIRONMENTAL SETTING	9
Project Location	9
Physiography and Geology	9
Hydrology and Soils	10
Land Use Patterns	13
Flora and Fauna	13
Modern Climate	14
Paleoenvironment	15
3. CULTURAL OVERVIEW	17
Pre-Contact Context.....	17
The Paleoindian Period (ca. 10,000–7500 B.C.)	17
The Archaic Period (ca. 7500–2000 B.C.).....	19
The Woodland Period (ca. 2000 B.C.–A.D. 1600).....	20
Historic Context.....	21
Contact and Early Settlement Period (ca. A.D. 1500–1750)	21
Rural Agrarian Intensification (A.D. 1680–1815).....	24
Agricultural-Industrial Transition (A.D. 1815–1870)	26
Industrial/Urban Dominance (A.D. 1870–1930)	27
Modern Period (A.D. 1930–Present)	28
Previously Recorded Cultural Resources in the Survey Areas	28
Cabin Branch (RFP-4) Stream Mitigation Site.....	28
Mill Swamp (RFP-6) Stream Mitigation Site.....	29
Paint Branch (AN-6 and AN-7) Stream Mitigation Sites	30
4. RESEARCH GOALS AND METHODS	33
Research Goals	33
Research Methods.....	33
Background Research	33
Fieldwork.....	33
Laboratory Analysis.....	34
Curation	35
National Register Eligibility Assessment	36
5. RESULTS OF CABIN BRANCH (RFP-4) SITE PHASE I SURVEY	39
Wilson Owens Branch Greenock Hills Stable Section	39
18ANX520-1	45
18ANX520-2	48
18ANX520-3	50
18AN1696.....	55
Wilson Owens Branch Cannon Golf Club Section.....	61

Cabin Branch Lare Section	63
18ANX520-4	65
Cabin Branch Greenock Hills Stables Section.....	68
18ANX520-5	70
18ANX520-6	74
6. RESULTS OF MILL SWAMP (RFP-6) SITE PHASE I SURVEY	77
Southwestern Section.....	77
18CHX115-1.....	78
18CH971	86
Southeastern Section.....	91
Northeastern Section.....	93
18CH972.....	93
Northwestern Section.....	101
7. RESULTS OF PAINT BRANCH (AN-6 AND AN-7) SITES PHASE I SURVEY	105
Paint Branch East Section (AN-6)	105
Levee	106
18PRX284-4	111
T1 Terrace.....	111
18PRX284-1	114
18PR1191	115
T2 Terrace.....	117
Paint Branch West Section (AN-6 and Eastern End of AN-7)	118
T1 Terrace.....	119
18PRX284-5	121
Tributary 1 Section (AN-7 and Southern End of AN-6).....	122
18PR111	126
18PR1192	132
18PRX284-2	134
18PRX284-3	135
18PRX284-6	138
Tributary 2 Section (AN-7).....	139
T0 Terrace.....	141
T1/T2 Terraces.....	142
18PR113	142
Ridge Nose.....	154
18PR1190	155
M-NCPPC Section (AN-6)	166
18PRX284-7	166
8. SUMMARY AND RECOMMENDATIONS.....	171
Cabin Branch (RFP-4) Stream Mitigation Site.....	171
Mill Swamp (RFP-6) Stream Mitigation Site	171
Paint Branch (AN-6 and AN-7) Stream Mitigation Sites	172
REFERENCES CITED.....	181
APPENDIX 1: ARTIFACT CATALOGS	
APPENDIX 2: SITE FORMS	
APPENDIX 3: ABBREVIATED RESUMES FOR KEY PERSONNEL	

FIGURES

1.1.	Location of Archaeology Survey Areas	3
1.2.	Stream Mitigation Site Locations in Maryland Archaeological Research Units 8 and 11	4
1.3.	Cabin Branch Archaeology Survey Areas and Resources Identified	5
1.4.	Mill Swamp Archaeology Survey Areas and Resources Identified	6
1.5.	Paint Branch Archaeology Survey Areas and Resources Identified.....	7
5.1.	Northern Portion of Cabin Branch Archaeology Survey Areas, Shovel Tests, and Resources.....	41
5.2.	Southern Portion of Cabin Branch Archaeology Survey Areas, Shovel Tests, and Resources.....	42
5.3.	View of Wet Area along WOB within the Greenock Hills Stables Section, Facing West.....	43
5.4.	View of Pasture in WOB Greenock Hills Stables Section, Facing Southwest.....	43
5.5.	View of Agricultural Field in WOB Greenock Hills Stables Section, Facing East.....	44
5.6.	View of Unnamed Tributary within WOB Greenock Hill Stables Section, Facing South.....	44
5.7.	View of Farm Road within WOB Greenock Hill Stables Section, Facing South	45
5.8.	View of Resource 18ANX520-1, Facing North	46
5.9.	View of Representative Shovel Test Profile at Resource 18ANX520-1	46
5.10.	Map of Resource 18ANX520-1.....	47
5.11.	View of Resource 18ANX520-2, Facing South	48
5.12.	Map of Resources 18ANX520-2 and 18ANX520-3	49
5.13.	View of Representative Shovel Test Profile at Resource 18ANX520-2	50
5.14.	View of Resource 18ANX520-3, Facing East.....	51
5.15.	View of Brick and Roofing Slate Pile at Resource 18ANX520-3, Facing Northeast	51
5.16.	View of Representative Shovel Test Profile at Resource 18ANX520-3	52
5.17.	Representative Ceramic Artifacts from Resource 18ANX520-3	53
5.18.	Representative Artifacts from Resource 18ANX520-3	54
5.19.	View of Site 18AN1696, Facing East	56
5.20.	Map of Site 18AN1696	57
5.21.	View of Shovel Test 4.9 (N500 E500) Profile at Site 18AN1696.....	58
5.22.	View of Shovel Test N525 E475 Profile at Site 18AN1696	58
5.23.	Historic Artifacts from Site 18AN1696.....	60
5.24.	View of WOB within the Cannon Golf Club Section, Facing Southeast.....	61
5.25.	View of Wet Area at Base of Terrace in WOB Cannon Golf Club Section, Facing Northwest	62
5.26.	View of Golf Course in WOB Cannon Golf Club Section, Facing Northwest	62
5.27.	View of Survey Area in Northern Portion of the CB Lare Section, Facing East	63
5.28.	View of Survey Area in Southern Portion of the CB Lare Section, Facing South.....	64
5.29.	View of Farm Road in CB Lare Section, Facing South	64
5.30.	View of Corn Crib and Barn in CB Lare Section, Facing Northeast.....	65
5.31.	Map of Resource 18ANX520-4.....	66
5.32.	View of Resource 18ANX520-4, Facing North	67
5.33.	View of Shovel Test 31.12 Profile at Resource 18ANX520-4.....	67
5.34.	View of Terrace within CB Greenock Hills Stables Section, Facing West.....	68
5.35.	View of Agricultural Field in CB Greenock Hills Stables Section, Facing Northeast.....	69
5.36.	View of Farm Road in CB Greenock Hill Stables Section, Facing South.....	69
5.37.	View of Barn near Farm Road in CB Greenock Hill Stables Section, Facing Northwest.....	70
5.38.	Map of Resource 18ANX520-5.....	71
5.39.	View of Resource 18ANX520-5, Facing Southwest.....	72
5.40.	View of Shovel Test 38.2 Profile at Resource 18ANX520-5.....	72
5.41.	Quartzite Core from Resource 18ANX520-5	73
5.42.	View of Resource 18ANX520-6, Facing Northeast.....	74
5.43.	Map of Resource 18ANX520-6.....	75

5.44.	View of Shovel Test N475 E500 Profile at Resource 18ANX520-6	76
5.45.	Quartz Small Savannah River PPK from Resource 18ANX520-6.....	76
6.1.	Mill Swamp Survey Areas, Shovel Tests, and Resources	79
6.2.	View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest	81
6.3.	View of Southwestern Section of Mill Swamp Survey Areas, Facing Northeast	81
6.4.	View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest	82
6.5.	View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest	82
6.6.	View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest	83
6.7.	View of Resource 18CH115X-1, Facing Northeast	83
6.8.	Map of Resource 18CHX115-1	84
6.9.	View of Representative Shovel Test Profiles on Resource 18CH115X-1.....	85
6.10.	Calvert PPK from Resource 18CH115X-1.....	85
6.11.	View of Site 18CH971, Facing South	86
6.12.	Map of Site 18CH971.....	87
6.13.	View of Representative Shovel Test Profile at Site 18CH971	88
6.14.	View of Foundation Remains at Site 18CH971, Facing Southwest.....	89
6.15.	Representative Pre-Contact Artifacts from Site 18CH971	90
6.16.	Representative Historic Artifacts from Site 18CH971	91
6.17.	View of Southeastern Section, Facing Northeast	92
6.18.	View of Trash Pile in Southeastern Section, Facing Southeast.....	92
6.19.	View of Northeastern Section, Facing Northeast	93
6.20.	View of East-Central Portion of Northeastern Section, Facing Southwest	93
6.21.	View of Site 18CH972, Facing North	94
6.22.	View of Site 18CH972, Facing West	94
6.23.	Map of Site 18CH972.....	96
6.24.	View of Test Unit 1 West Wall Profile at Site 18CH972.....	97
6.25.	Pre-Contact Artifacts from Site 18CH972.....	99
6.26.	Representative Historic Artifacts from Site 18CH972	100
6.27.	View of Northwestern Section, Facing Northeast	101
6.28.	View of Northwestern Section, Facing Northeast	102
6.29.	View of Northwestern Section, Facing South	102
6.30.	View of Northwestern Section, Facing West	103
7.1.	Paint Branch Survey Areas within USDA BARC Property, Shovel Tests, and Resources.....	107
7.2.	View of Agricultural Test Plot in Eastern Part of Paint Branch East, Facing North.....	109
7.3.	View of Agricultural Test Plot in Eastern Part of Paint Branch East, Facing East	109
7.4.	View of Levee in Eastern Part of Paint Branch East, Facing North.....	110
7.5.	View of Wet Area in Northeast Portion of Paint Branch East, Facing South	110
7.6.	View of Paint Branch along West Side of Paint Branch East, Facing North	111
7.7.	View of Shovel Test 1.9 Profile in Paint Branch East.....	112
7.8.	View of Shovel Test 3.15 Profile in Paint Branch East.....	113
7.9.	View of Resource 18PRX284-1, Facing North	114
7.10.	View of Resource 18PR1191, Facing South	115
7.11.	Map of Site 18PR1191	116
7.12.	Biface Fragment from Site 18PR1191.....	117
7.13.	View of Fallow Field South of Tributary 1 in Paint Branch West, Facing North	118
7.14.	View of Pasture Area North of Tributary 1 in Paint Branch West, Facing North.....	119
7.15.	View of Shovel Test 1.5 in Western Part of Paint Branch West	120
7.16.	View of Tributary 1 Section, Facing West	122
7.17.	View of Tributary 1 Section, Facing East	123
7.18.	View of Unnamed Tributary 1, Facing East.....	123
7.19.	View of Tributary 1 Bank Cut, Facing North.....	124

7.20.	View of Terrace and Tributary 1, Facing West.....	124
7.21.	View of Ridge Slope South of Tributary 1, Facing South.....	125
7.22.	View of Site 18PR111, Facing Southwest.....	127
7.23.	View of Site 18PR111, Facing East	127
7.24.	Map of Site 18PR111	129
7.25.	View of Dark Lens in N500 E500 at Site 18PR111, Facing North.....	130
7.26.	Biface Fragment from Site 18PR111.....	131
7.27.	View of Site 18PR1192, Facing North.....	132
7.28.	Map of Site 18PR1192	133
7.29.	View of Resource 18PRX284-2, Facing South.....	135
7.30.	Map of Resource 18PRX284-2.....	136
7.31.	Map of Resource 18PRX284-3.....	137
7.32.	View of Resource 18PRX284-3, Facing North.....	138
7.33.	View of Tributary 2 Survey Area, Facing South.....	139
7.34.	View of Open Vegetation on T1 and T2 Terraces in Tributary 2 Survey Area, Facing East.....	140
7.35.	View of Tributary 2, Facing North.....	140
7.36.	View of Tributary 2 Culvert, Facing Northeast.....	141
7.37.	View of Eroded Surface on T0 Terrace of Tributary 2, Facing Northwest	142
7.38.	Map of Site 18PR113	144
7.39.	View of Site 18PR113, Facing North.....	145
7.40.	View of West Wall Profile of Test Unit 1 at Site 18PR113, Facing West.....	147
7.41.	View of South Wall Profile of Test Unit 2 at Site 18PR113, Facing South.....	148
7.42.	Representative Pre-Contact Ceramic and Flaked Stone Tools from Site 18PR113	150
7.43.	Representative Large Cores from Site 18PR113	151
7.44.	Representative Small Cores from Site 18PR113	152
7.45.	Hammerstone/Anvil from Site 18PR113.....	153
7.46.	Hammerstone from Site 18PR113	154
7.47.	View of Site 18PR1190, Facing West.....	155
7.48.	Map of Site 18PR1190	156
7.49.	View of Eroding Gravel and Cobbles at Site 18PR1190, Facing Northwest	157
7.50.	View of West Wall Profile of Test Unit 1 at Site 18PR1190, Facing West.....	159
7.51.	Pre-Contact Ceramic and Tools from Site 18PR1190.....	161
7.52.	Representative Bifaces from Site 18PR1190.....	162
7.53.	Utilized and Retouched Flakes from Site 18PR1190	163
7.54.	Representative Large Cores from Site 18PR1190	164
7.55.	Representative Small Cores from Site 18PR1190	165
7.56.	Paint Branch Survey Area within MNCCP Property, Shovel Tests, and Resources	167
7.57.	View of M-NCPPC Section, Facing West.....	168
7.58.	View of M-NCPPC Section, Facing Northeast	168
7.59.	View of Resource 18PRX284-7, Facing Southwest.....	169
8.1.	Map of Site 18AN1696 Showing Site in Relation to LOD	173
8.2.	Map of Site 18CH971 Showing Site in Relation to LOD	174
8.3.	Map of Site 18CH972 Showing Site in Relation to LOD	175
8.4.	Map of Sites 18PR113 and 18PR1190 Showing Sites in Relation to LOD	176
8.5.	Map of Site 18PR111 Showing Site in Relation to LOD	177

This page intentionally left blank.

TABLES

A.1.	Summary of Archaeological Resources in Cabin Branch Site Archaeology Survey Areas	i
A.2.	Summary of Archaeological Resources in Mill Swamp Site Archaeology Survey Areas	ii
A.3.	Summary of Archaeological Resources in Paint Branch Sites Archaeology Survey Areas	ii
2.1.	Soils in the Cabin Branch Archaeology Survey Areas	11
2.2.	Soils in the Mill Swamp Archaeology Survey Areas	12
2.3.	Soils in the Paint Branch Archaeology Survey Areas	12
3.1.	Previously Recorded Archaeological Sites within a Mile of the Cabin Branch Site	29
3.2.	Previously Recorded Archaeological Sites within a Mile of the Mill Swamp Site	29
3.3.	Previously Recorded Archaeological Sites within a Mile of the Paint Branch Sites	30
5.1.	Artifacts from Resource 18ANX520-3	55
5.2.	Artifacts from Site 18AN1696	59
6.1.	Artifacts from Site 18CH971 by Horizon	89
6.2.	Artifacts from Site 18CH972 by Horizon	98
7.1.	Artifacts from Site 18PR1191 by Horizon	117
7.2.	Artifacts from Site 18PR111 by Horizon	131
7.3.	Artifacts from Site 18PR1192 by Horizon	134
7.4.	Shovel Test Artifacts from Site 18PR113 by Horizon	145
7.5.	Artifacts from Test Unit 1 at Site 18PR113 by Horizon	148
7.6.	Artifacts from Test Unit 2 at Site 18PR113 by Horizon	149
7.7.	Shovel Test Artifacts from Site 18PR1190 by Horizon	158
7.8.	Artifacts from Test Unit 1 at Site 18PR1190 by Horizon	160
8.1.	Summary of Archaeological Resources in Cabin Branch Site Archaeology Survey Areas	171
8.2.	Summary of Archaeological Resources in Mill Swamp Site Archaeology Survey Areas	172
8.3.	Summary of Archaeological Resources in Paint Branch Sites Archaeology Survey Areas	179

This page intentionally left blank.

1. INTRODUCTION

TRC Environmental Corporation (TRC), with the assistance of New South Associates, Inc. (NSA), performed Phase I archaeological survey of areas within the Limits of Disturbance (LOD) of four proposed stream mitigation sites, one in Anne Arundel (RFP-4 Cabin Branch), one in Charles (RFP-6 Mill Swamp), and two in Prince George's (AN-6 and AN-7 Paint Branch) counties, in association with the I-495/I-270 Managed Lanes Study (MLS) for the Maryland Department of Transportation's State Highway Administration (MDOT SHA) (Figure 1.1). The Cabin Branch stream mitigation site is situated within Maryland Archaeological Research Unit 8 (Riverine Patuxent Drainage), and the Mill Swamp and Paint Branch stream mitigation sites are situated within Maryland Archaeological Research Unit 11 (Riverine Potomac Drainage) (Figure 1.2). Archaeology survey areas were delineated within the LOD at each site by the MDOT SHA based on project plans available at the time of this survey. Fieldwork was performed during four separate field sessions in 2020 (August 24–September 2, September 6–15, October 5–9, and November 30–December 4) and one in 2021 (January 4–8) under the direction of Tracy Millis, Jeff Johnson, and Bruce Idol, Field Directors, and Heather Millis, Principal Investigator.

The archaeology survey areas for the Cabin Branch site involved area along Owens Wilson Branch and Cabin Branch as well as several proposed access roads for a total of 70.1 acres (Figure 1.3). Phase I archaeological survey was conducted in well-drained, level and gently sloping locations within 50 ft of the areas that are likely to experience construction disturbance, including wetland creation, stream restoration, and buffer enhancement activities. Areas proposed for preservation in this site did not require archaeological survey, and areas of stream restoration will largely impact active stream channels with little archaeological potential. The archaeology survey areas were considered to have a high potential for the presence of archaeological sites.

The archaeology survey areas for the Mill Swamp site involved four areas along Mill Swamp for a total of 19.6 acres (Figure 1.4). Phase I archaeological survey was conducted within all well-drained, undisturbed portions of the Mill Swamp site that will be subject to excavation, planting, or other disturbance related to the project. This includes all areas designated as upland preservation and all well-drained areas within the project LOD and also includes areas designated for disposal of excavated material. Limited survey was conducted in areas not mapped as well drained to ensure adequate coverage of the area. The archaeology survey areas were considered to have a high potential for the presence of archaeological sites.

The archaeology survey areas for the Paint Branch sites include proposed staging locations, access roads, and other project elements along Paint Branch [REDACTED] located on United States Department of Agriculture (USDA) Beltsville Agricultural Research Center (BARC) property and one area located on Maryland-National Capital Park and Planning Commission (M-NCPPC) property for a total of 19.1 acres (Figure 1.5). Survey was conducted within all well-drained portions of these sites not substantially disturbed by interstate construction, as well as within areas of Codorus and Hatboro soils, which have, in some cases, been found to contain deeply buried archaeological resources despite poor drainage. Two previously documented archaeological sites are located within the LOD (18PR113 and 18PR1133) and one previously recorded site (18PR111) is located adjacent to the LOD. The archaeology survey areas were considered to have a high potential for the presence of archaeological sites.

The investigations complied and were consistent with all pertinent federal and state regulations, including, but not limited to, the 1986 Specifications for Consulting Engineers Services Manual, Section IV; Section 106 of the *National Historic Preservation Act* and its implementing regulations (36CFR 800, *Protection of Historic Properties*), as amended; the *National Environmental Policy Act* of 1969; the Advisory Council on Historic Preservation's *Treatment of Archaeological Properties*; the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (1983); the MDOT SHA's 2017

Archaeology Guidelines for Consultants; the Maryland Historical Trust's *Standards and Guidelines for Archaeological Investigations in Maryland* (Shaffer and Cole 1994) and *Technical Update No. 1 of the Standards and Guidelines for Archeological Investigations in Maryland: Collections and Conservation Standards* (Morehouse et al. 2018); and the Maryland Historical Trust Act of 1985, as amended (State Finance and Procurement Article 5A-325 and 5A-326 of the Annotated Code of Maryland).

The following chapters detail the methods and results of the investigations. Chapter 2 presents an overview of the environmental setting for the archaeology survey areas for each site. Chapter 3 presents the results of the background research, including the pre-contact and historic contexts for the project region and a summary of previously recorded archaeological sites near the archaeological survey areas. Chapter 4 details the research goals and methods. Chapters 5–7 describe the results of the archaeological survey by county. Chapter 8 summarizes the results and recommendations and is followed by a list of references cited in the text. The artifact catalogs are Appendix 1; Appendix 2 contains the site forms; and Appendix 3 contains abbreviated resumes for key personnel.

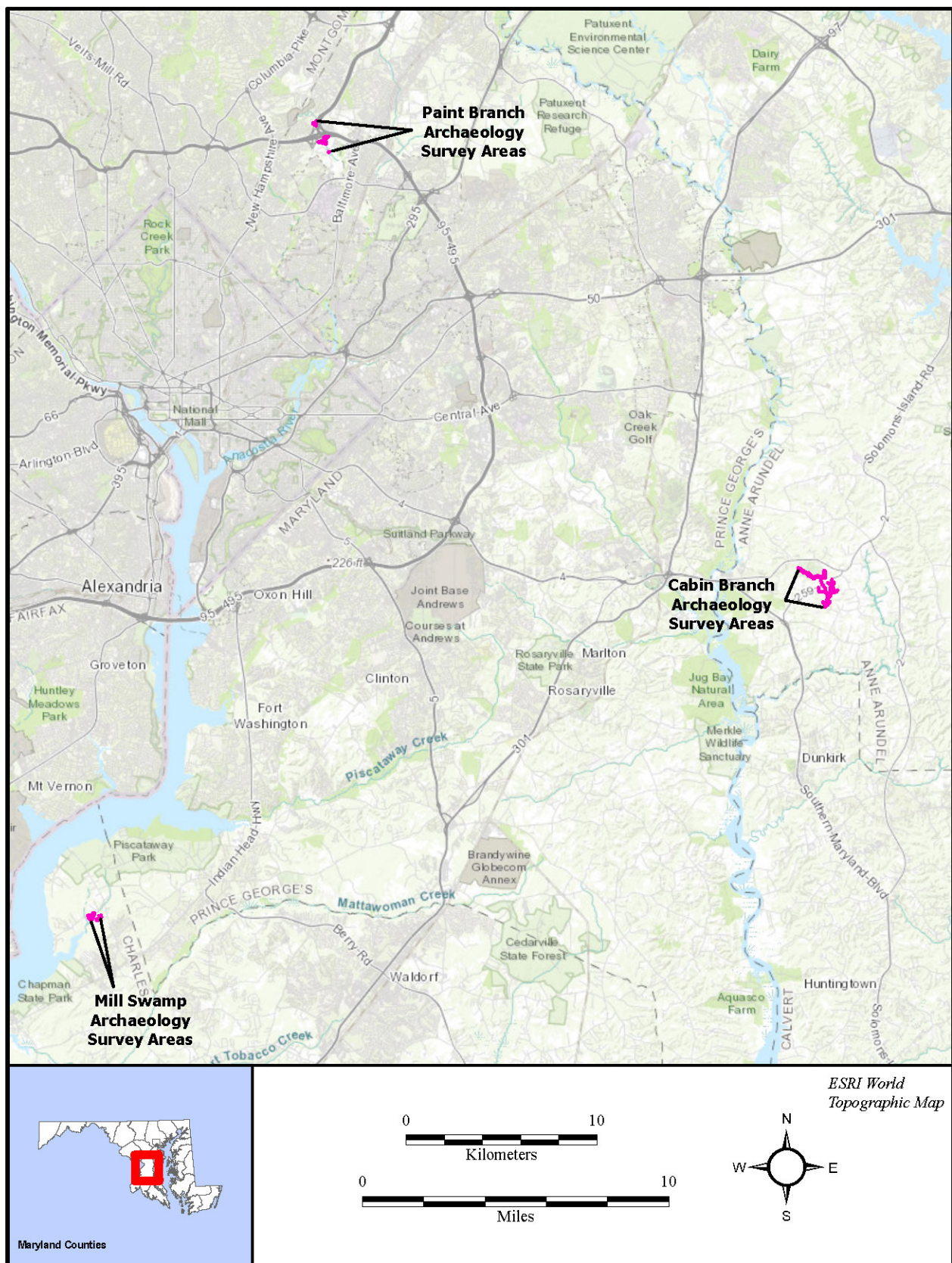


Figure 1.1. Location of Archaeology Survey Areas.

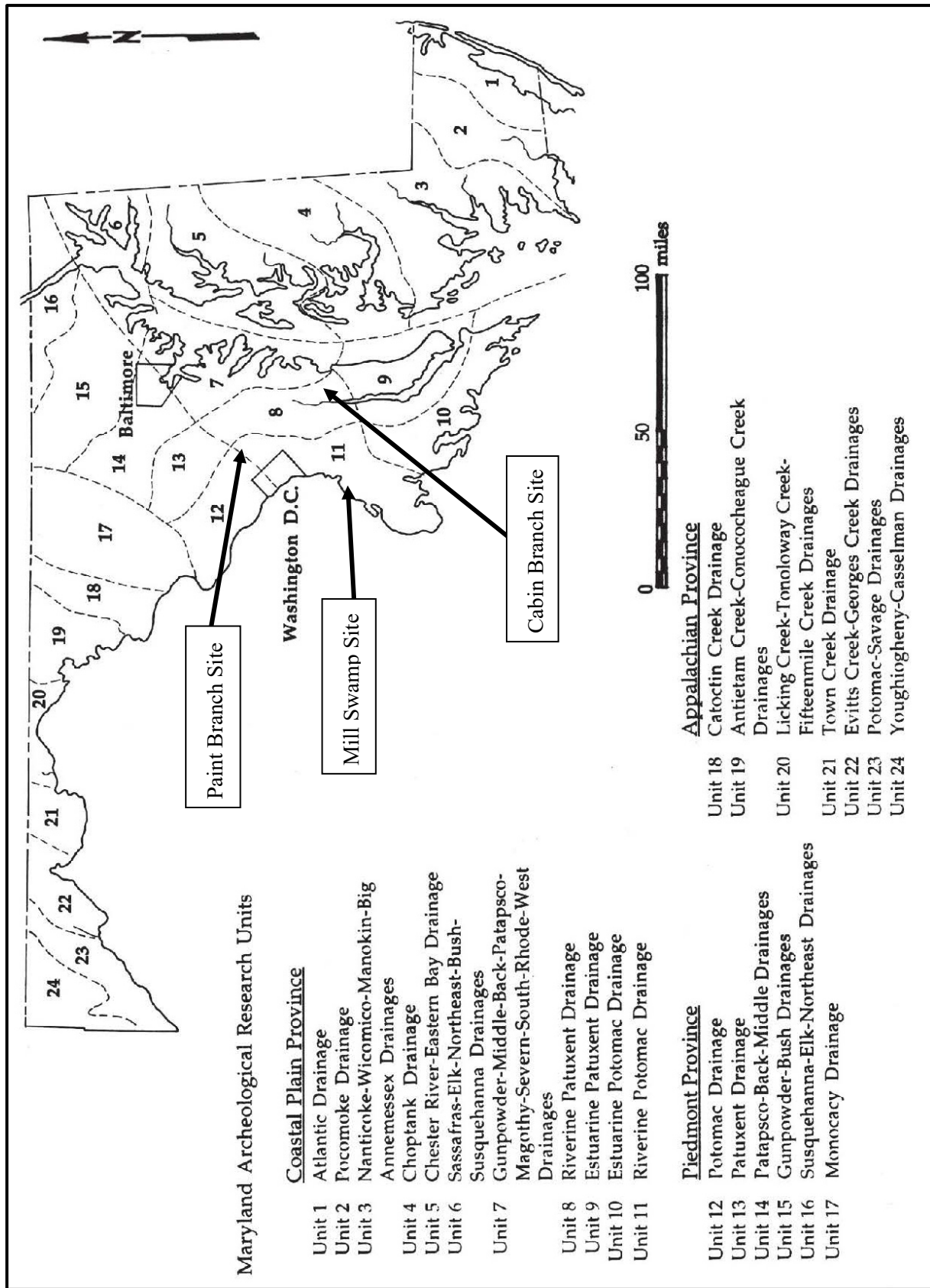
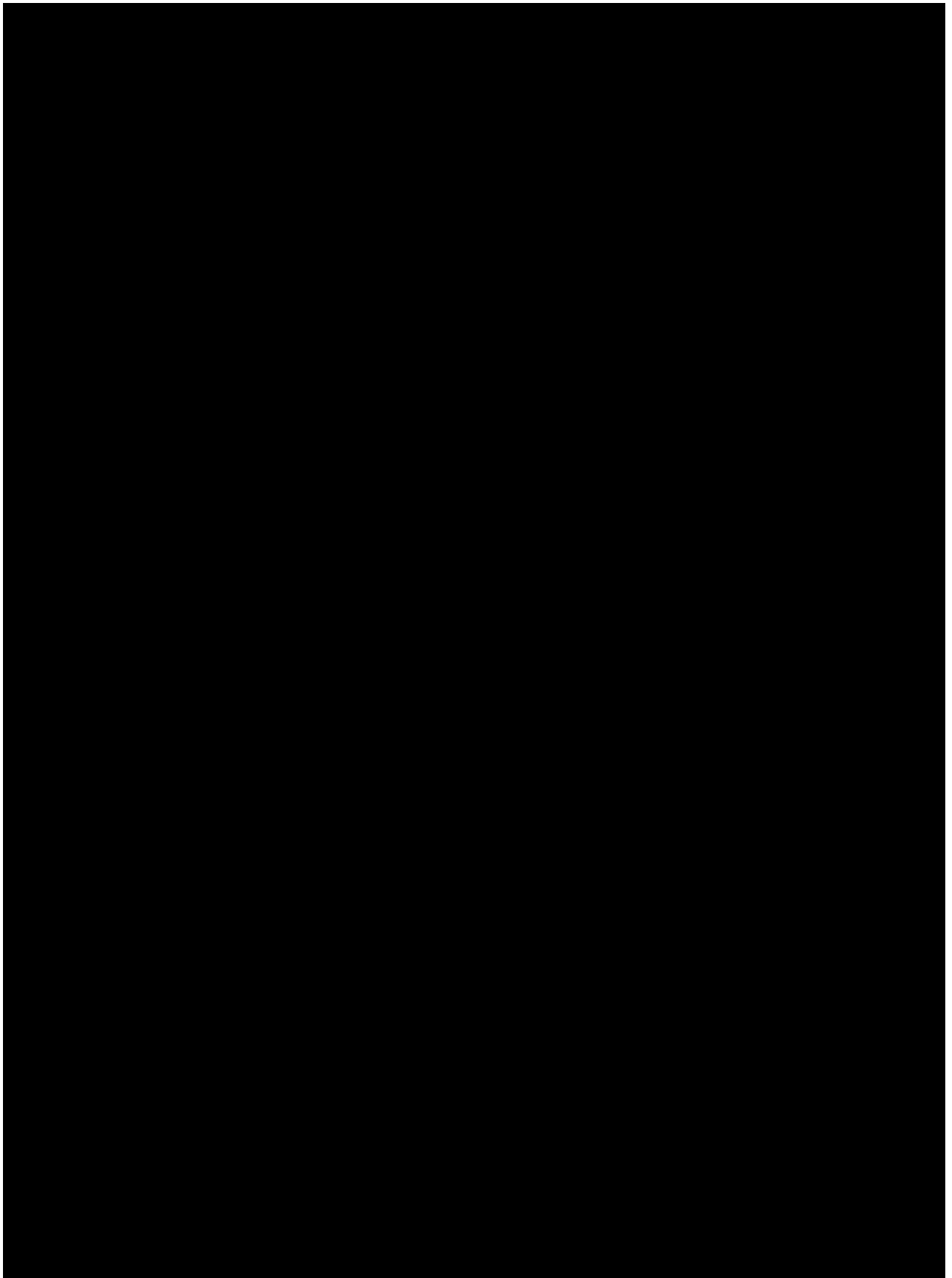
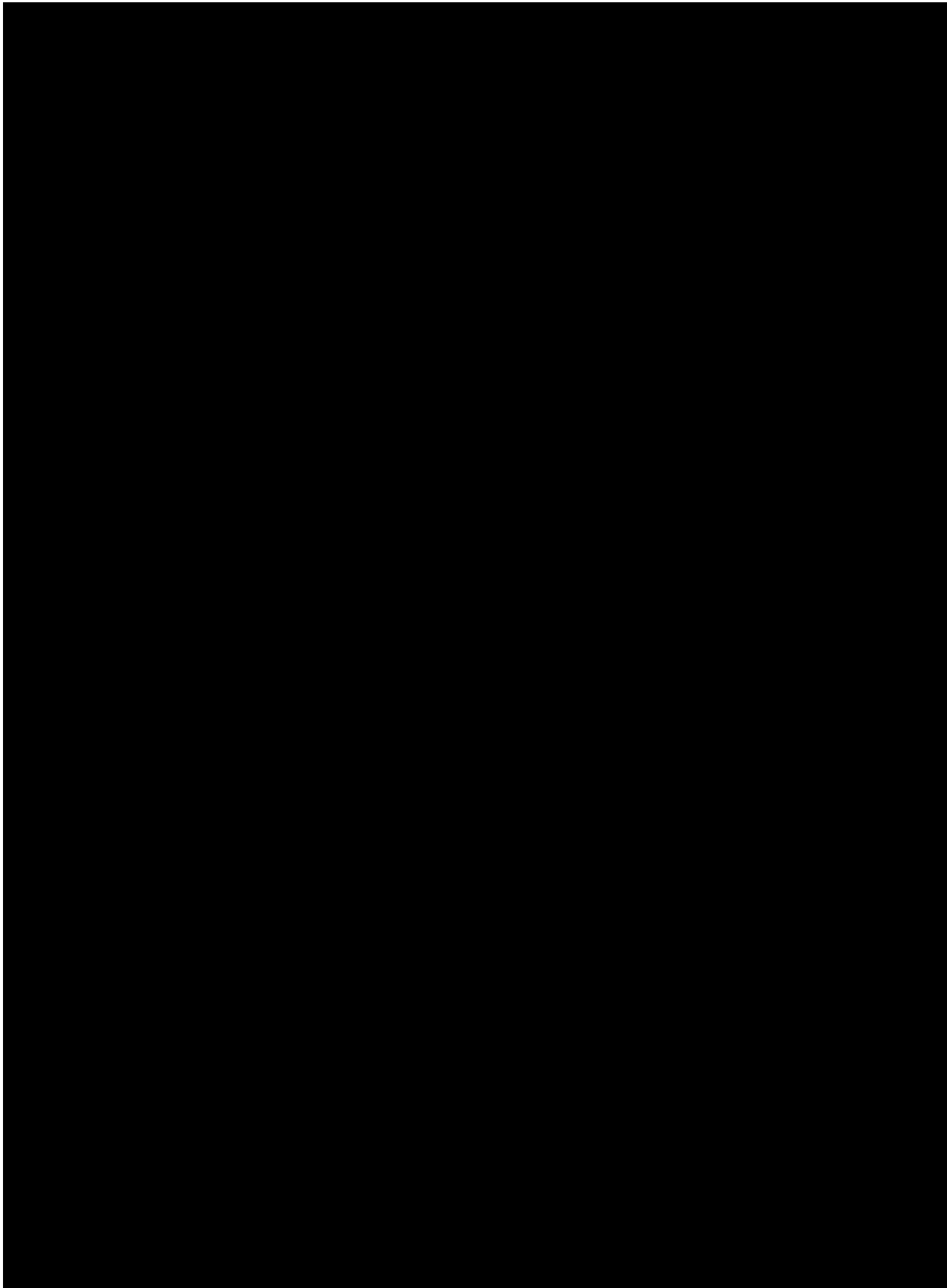
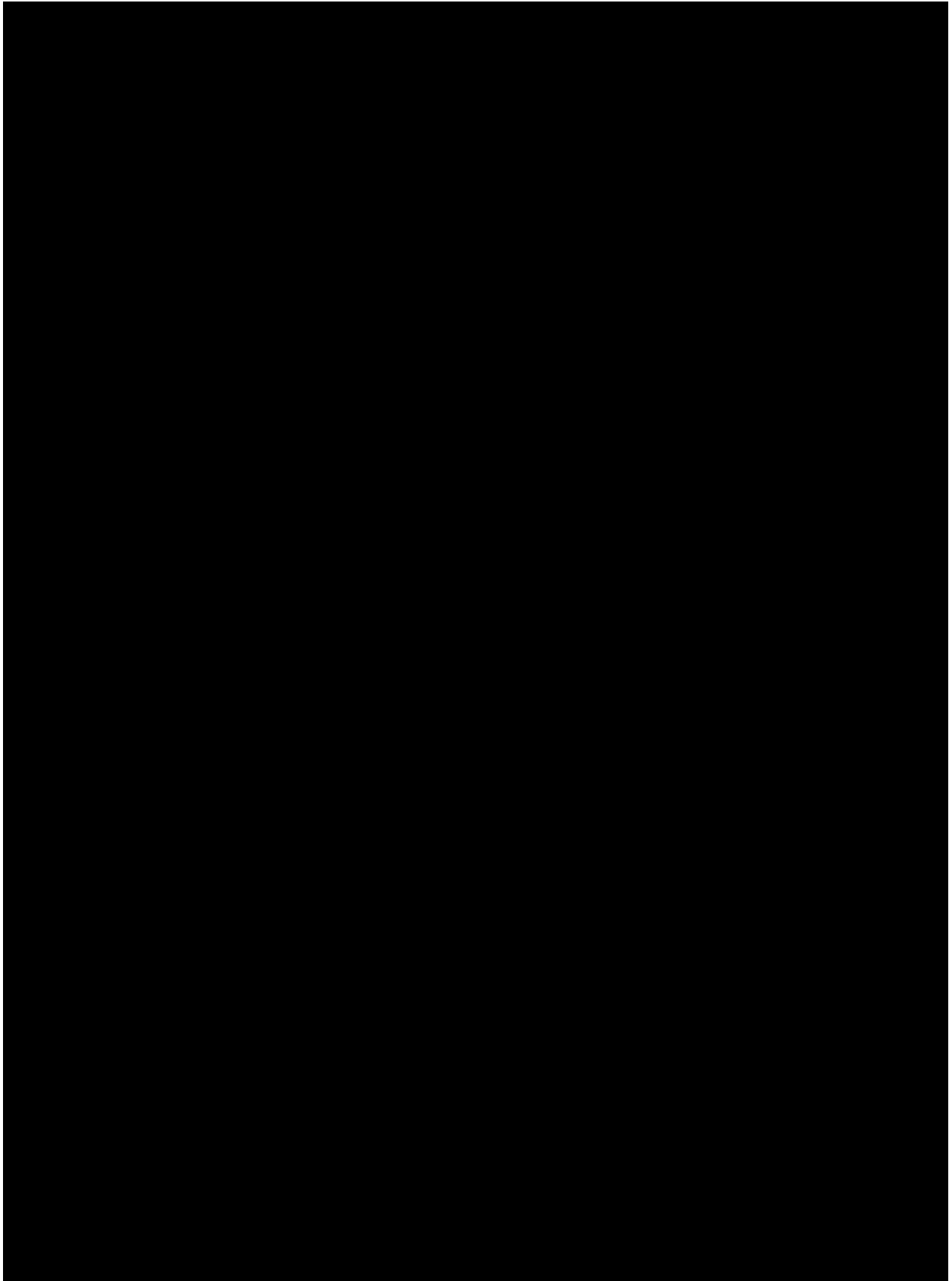


Figure 1.2. Stream Mitigation Site Locations in Maryland Archaeological Research Units 8 and 11.







This page intentionally left blank.

2. ENVIRONMENTAL SETTING

PROJECT LOCATION

The Cabin Branch stream mitigation site is located in southern Anne Arundel County in the western shore region of Maryland, approximately five miles east of the Town of Upper Marlboro. The Phase I archaeology survey areas involved two irregular shaped areas along Cabin Branch, Wilson Owens Branch, and several unnamed tributaries to those streams as well as several access roads. The combined survey areas contain approximately 70.1 acres.

The Mill Swamp stream mitigation site is located in northern Charles County just south of the Washington, D.C. metro area of Maryland, approximately two miles north of the Town of Bryans Road. The Phase I archaeology survey areas involved four irregular shaped areas in the vicinity of Mill Swamp east of Fenwick Road and on both sides of Ward Place totaling approximately 19.9 acres.

The Paint Branch stream mitigation sites are located in northwestern Prince George's County in the Washington, D.C. metro area of Maryland, approximately two miles southwest of the Town of Beltsville. The Phase I archaeology survey areas involved three irregular shaped areas adjacent to Paint Branch [REDACTED]

One area located to the northwest of the interchange is within M-NCPPC property and the other two areas within the interchange are located on USDA BARC property. The three areas encompass a total of approximately 19.6 acres.

PHYSIOGRAPHY AND GEOLOGY

The Cabin Branch stream mitigation site is within Fenneman's (1938) Coastal Plain physiographic province. This area is within the Prince Frederick Knobby Upland district of the Western Shore Uplands region, which is characterized by flat to rolling upland surfaces underlain by Cretaceous to Pliocene sediments. Elevations in this area range from 0–265 ft above mean sea level (AMSL), and the archaeology survey area is situated on landforms with elevations ranging from 75–155 ft AMSL. The Prince Frederick Knobby Upland area contains moderately to well-dissected uplands with numerous hillocks, in large part occupying the interfluvium between the Patuxent and Chesapeake watersheds (Reger and Cleaves 2008a, 2008b).

The Mill Swamp stream mitigation site is within Fenneman's (1938) Coastal Plain physiographic province. The Potomac River is located approximately 1.5 miles to the east of the archaeology survey area. This area is within the Potomac Estuary and Lowlands district of the Western Shore Lowlands region characterized by low elevation fluvial and estuarine terraces, beaches, and river mouths that fringe the uplands. The elevations in this area vary between 0 and 100 ft AMSL, and the archaeology survey area is situated on landforms at the lower end of the spectrum, with elevations ranging from 1–35 ft AMSL. The Potomac Estuary and Lowlands district is characterized by terraced lowlands and swampy estuaries along the Potomac River (Reger and Cleaves 2008a, 2008b).

The Paint Branch stream mitigation site is within Fenneman's (1938) Coastal Plain physiographic province, and the fall line dividing this province from the Piedmont is less than a mile to the northwest of the archaeology survey area. This area is in the Anacostia Valley area of the Western Shore Uplands region, which contains flat to rolling upland surfaces underlain by Cretaceous to Pliocene sediments. Elevations in the Anacostia Valley area are described as generally between 5 and 100 ft AMSL, and the archaeology survey area is situated on landforms with elevations ranging from 95–125 ft AMSL. The Anacostia Valley area of

the Western Shore Upland district is characterized as a pronounced valley cut into the upland surface that includes quaternary alluvium and tertiary terraces (Reger and Cleaves 2008a, 2008b).

The Cabin Branch archaeology survey areas are underlain by Chesapeake Group deposits of the Miocene period, specifically the Fairhaven Member. These are described as “Greenish-blue diatomaceous clay, weathers to pale gray; pale brown to white, fine-grained argillaceous sand and greenish-blue sandy clay; the upper portion of the Fairhaven is rather homogeneous, fine to very fine, argillaceous sand; total thickness 0 to 150 feet” (Glaser 1968).

The Mill Swamp archaeology survey areas are underlain by Quaternary Lowlands deposits of the Pleistocene to recent period. These are described as “Gravel, sand, silt and clay. Medium- to coarse-grained sand and gravel; cobbles and boulders near base; commonly contains reworked Eocene glauconite; varicolored silts and clays; brown to dark gray lignitic silty clay; contains estuarine to marine fauna in some areas; thickness 0 to 150 feet” (Glaser 1968).

The Paint Branch archaeology survey areas are underlain by Quaternary alluvium of the Holocene period and the Laurel Formation of the Cambrian period (Glaser 2003). The Quaternary alluvium is described as “Interbedded sand, silt-clay, and subordinate gravel; light- to dark-gray, tan, or brown; weathers pale-gray, yellow or brown; thickness ranges from less than 5 feet to as much as 40 feet, although the average is closer to 15 feet; deposited mostly in the past 10,000 years” (Glaser 2003). The Laurel Formation is described as “medium- to coarse-grained, moderately to well foliated sedimentary mélange consisting of a quartzofeldspathic matrix that contains quartz ‘eyes’ and fragments to blocks of metamorphic rocks which specifically include fragments of meta-arenite and biotite schist in the mapped area” (Fleming et al. 1995). The rock weathers to a porous, spongy brown saprolite and grades upward to a sticky micaceous red and gray clay (Withington and Froelich 1974).

HYDROLOGY AND SOILS

The Cabin Branch stream mitigation site is within the Patuxent River drainage system. The northern archaeology survey area runs along Wilson Owens Branch, and the southern archaeology survey area runs along Cabin Branch. Wilson Owens Branch flows northwest into the Patuxent River about two miles northwest of the archaeology survey area. Cabin Branch flows southwest into Lyons Creek, which then feeds into the Patuxent River approximately four miles southwest of the archaeology survey area. The Patuxent River flows to the south-southeast to empty into the Chesapeake Bay and ultimately the Atlantic Ocean.

The Mill Swamp stream mitigation site is within the Potomac River drainage system. The archaeology survey area is situated around Mill Swamp and an unnamed tributary to the swamp, which flows southwest from the archaeology survey area for less than a quarter mile before converging with Pomonkey Creek. Pomonkey Creek flows into the Potomac River just south of Fenwick, Maryland. The Potomac River meanders generally southeastward to empty into the Chesapeake Bay and ultimately the Atlantic Ocean.

The Paint Branch stream mitigation sites are within the Potomac River drainage system. The archaeology survey areas are bisected by Paint Branch, which flows southeast and converges with Indian Creek before becoming the Northeast Branch of the Anacostia River approximately four miles southeast of the survey area. The Northeast and Northwest Branches become the Anacostia River at their confluence. The Anacostia River flows into the Potomac River in southern Washington, D.C., and the Potomac River meanders generally southeastward to empty into the Chesapeake Bay and ultimately the Atlantic Ocean.

The Cabin Branch stream mitigation site is located within the Marr-Westphalia-Sassafras soil association, which is characterized by “rounded knolls, gently sloping ridges, and strongly sloping irregular hillsides;

formed mainly in fine sand that contains much silt and clay” (Kirby and Matthews 1973). This association is described as severely eroded in areas due to intensive agriculture in the past. Marr soils comprise about 30 percent of this association, Westphalia soils about 25 percent, and Sassafras soils about 10 percent. The remaining 35 percent consists of minor soils, including Howell, Adelphia, and Shrewsbury soils (Kirby and Matthews 1973). Soils of three distinct USDA soil series are present throughout the archaeology survey areas. Table 2.1 provides the soil series name, areal percentage, associated symbols, slope percentage within the archaeology survey areas, depth and drainage characteristics, and associated landforms.

Table 2.1. Soils in the Cabin Branch Archaeology Survey Areas.

Soil Series	%	USDA Symbol	Slope %	Drainage	Landform
Dodon	1.0	DfB Dfc	2–10	Moderately well drained	Fluviomarine terraces, interfluves
Marr-Dodon	17.6	MaB MaC MaD MDE	2–25	Well drained	Fluviomarine terraces, interfluves, knolls, interfluves, stream terraces
Water	0.2	W	0		
Widewater and Issues	73.5	WBA	0–2	Poorly drained	Drainageways, floodplains, drainhead complexes

Source: USDA NRCS 2020

The dominant soil type encountered throughout the Cabin Branch archaeology survey areas (73.5%) is frequently flooded Widewater and Issues, 0 to 2 percent slopes (WBA). This type consists of deep, poorly drained soils formed in loamy alluvium within drainageways, floodplains, and drainhead complexes. Marr-Dodon complex soils are the other predominant series in the archaeology survey areas (17.6%); these soils are deep, well-drained, dark brown soils on uplands. Marr-Dodon soils are described as “old deposits of fine sandy to very fine sandy material containing considerable amounts of silt and clay; practically all of these soils have been cultivated at some time” (Kirby and Matthews 1973). Dodon soils are also present within the archaeology survey areas to a minor extent (1.0%) and consist of deep, moderately well-drained loamy fluviomarine deposits. The remainder of the archaeology survey areas (0.2%) have water on the surface.

The Mill Swamp stream mitigation site is located within the Evesboro-Keyport-Elkton soil association, which is defined as “level to moderately sloping, excessively drained, sandy soils and moderately well-drained and poorly drained, level to gently sloping, loamy soils that have a clayey subsoil” (Hall and Matthews 1974). Evesboro soils comprise about 30 percent of this association, Keyport and Elkton soils each about 40 percent, and minor soils make up the remaining 30 percent. Many minor soils are included in this association, with the most extensive being excessively drained Galestown and Rumford soils, well-drained Croom and Sassafras soils, moderately well-drained Matawan and Mattapex soils, and poorly drained Bibb soils on floodplains (Hall and Matthews 1974). Soils of six distinct USDA soil series are present throughout the archaeology survey areas. Table 2.2 provides the soil series name, areal percentage, associated symbols, slope percentage within the archaeology survey areas, depth and drainage characteristics, and associated landforms.

The most abundant soil type encountered throughout the Mill Swamp archaeology survey areas (72.0%) is Potobac-Issue complex (0–2% slopes), which is frequently flooded (Pu). This type consists of deep, poorly drained soils formed on floodplains with parent materials of sandy and loamy fluvial sediments. Galestown-Hammonton complex soils (10.9%), Liverpool-Piccowaxen complex soils (9.5%), and Piccowaxen series soils (7.1%) are the other predominant soil types within the archaeology survey areas. Galestown-Hammonton soils are deep, somewhat excessively drained, and are found in upland areas. Liverpool series soils are characterized as silty and loamy fluviomarine deposits found on terraces with 0–15 percent slopes.

Piccowaxen soils (0–5% slopes) are also present on fluviomarine terraces and consist of deep, somewhat poorly drained loam. Mispillion and Transquaking soils (0.2%) and Nanticoke and Mannington soils (0.2%) are present within the tidal marshes inside the archaeology survey areas.

Table 2.2. Soils in the Mill Swamp Archaeology Survey Areas.

Soil Series	%	USDA Symbol	Slope %	Drainage	Landform
Galestown-Hammonton	10.9	GcB	0–5	Somewhat excessively well drained to moderately well drained	Fluviomarine terraces, dunes, depressions, swales, drainageways
Liverpool-Piccowaxen	9.5	LxD	5–15	Moderately well drained to somewhat poorly drained	Fluviomarine terraces
Mispillion and Transquaking	0.2	MT	0–1	Very poorly drained	Tidal Marshes
Nanticoke and Mannington	0.2	NG	0–1	Very poorly drained	Tidal Marshes
Piccowaxen	7.1	PcA PcB	0–5	Somewhat poorly drained	Terraces
Potobac-Issue	72.0	Pu	0–2	Somewhat poorly drained to poorly drained	Floodplains

Source: USDA NRCS 2020

The Paint Branch stream mitigation sites are located within the Christiana-Sunnyside-Beltsville soil association, which is described as containing “deep, level to steep, well-drained, sandy and clayey soils and level to sloping, moderately deep, moderately well-drained soils; formed over a compact subsoil of dominantly red clay” (Kirby et al. 1967). Christiana soils comprise about 26 percent of this association, Sunnyside soils about 20 percent, and Beltsville soils about 20 percent. The remaining 34 percent consists of soils of the somewhat excessively drained Galestone and Evesboro soils, well-drained Sassafras soils, moderately well-drained Keyport and Woodstown soils, and poorly drained Elkton and Fallsington soils (Kirby et al. 1967). Soils of six distinct USDA soil series are present throughout the archaeology survey areas. Table 2.3 provides the soil series name, areal percentage, associated symbols, slope percentage within the archaeology survey areas, depth and drainage characteristics, and associated landforms.

Table 2.3. Soils in the Paint Branch Archaeology Survey Areas.

Soil Series	%	USDA Symbol	Slope %	Drainage	Landform
Christiana-Downer	0.3	CcC	5–10	Well drained to moderately well drained	Knolls, hillslopes, interfluves, swales, drainhead complexes
Codorus and Hatboro	63.6	CF	0–2	Moderately well drained to poorly drained	Floodplains
Croom	1.0	CrD	10–15	Well drained	Interfluves, knolls, hillslopes
Manor-Brinklow	1.7	MfF	25–65	Well drained	Hillslopes, ridges
Russett-Christiana	19.1	RcA RcB	0–5	Moderately well drained	Swales, broad interstream divides, hillslopes, interfluves, drainhead complexes
Udorthents	14.4	UdaF	0–65	Well drained	Human transported

Source: USDA NRCS 2020

The most ubiquitous soil type encountered throughout the Paint Branch archaeology survey areas (63.6%) is Codorus and Hatboro soils (0–2% slopes), which are frequently flooded (CF). This type consists of

moderately well-drained to poorly drained soils that occur mainly on floodplains and is characterized as recently deposited materials that washed from soils developed from acid crystalline rocks of the Piedmont that are often micaceous. Russett-Christiana complex soils (0–5% slopes) are also prevalent in the archaeology survey areas (19.1%); these soils are deep, well-drained silt loams, clays, and fine sandy loams on the higher parts of the Coastal Plain uplands. These soils have clay subsoil and developed in thick beds of very old red clay that are covered in silty or sandy materials in some places. Udorthents from the construction of the I-95/I-495 interchange are also prevalent (14.4%) within the archaeology survey areas. Christiana-Downer complex soils (0.3%), Croom gravelly sandy loam (1.0%), and Manor-Brinklow complex soils (1.7%) are present to a minor extent within the archaeology survey areas.

LAND USE PATTERNS

The region surrounding the Cabin Branch stream mitigation site is rural, containing a mix of agricultural, pastoral, residential, and recreational properties. Much of the area has been used in the past for agricultural purposes, which has contributed to severe erosion in some areas. Residential development is mostly confined to areas close to the roads, but there are several large farmsteads in the area. The northwestern portion of the northern archaeology survey area is just within and adjacent to the Cannon Club Golf Course, developed in the early 1990s (thecannongolfclub.com). The remaining areas of agricultural fields, pasture, and hardwood forest along the streams near the archaeology survey area appear to have undergone little change in the last century or more.

The region surrounding the Mill Swamp stream mitigation site is rural and contains a mix of agricultural, residential, and forested land. There are areas that have been used in the past for agricultural purpose, but historic maps show that much of the area has been forested for many decades (USGS 1913, 1951, 1966). Residential development is limited and mostly confined to areas directly abutting roads, but there are several large housing developments surrounding the town of Bryans Road. The only major roadway in the area is State Route 210, which is located approximately two miles southeast of the survey area. More specific areas of disturbance are discussed in the results chapter.

The region surrounding the Paint Branch stream mitigation sites is part of the Washington, D.C. metro area, containing significant amounts of residential and commercial development. While there are areas of undeveloped farmland, all of it is associated with the USDA BARC, otherwise the surrounding areas are densely populated and heavily developed. The land for the USDA BARC, which was formerly the 475-acre Walnut Grange plantation, was purchased in 1910 (Kaplan 2001). The construction of I-95/I-495 occurred between the mid-1950s and mid-1960s, and since then substantial urban development has occurred in the area. Portions of the survey area have been severely impacted by the construction of the I-95/I-495 interchange, but a majority of the archaeology survey areas fall within the USDA BARC property and therefore have remained fairly undisturbed. More specific areas of disturbance are discussed in the results chapter.

FLORA AND FAUNA

The Paint Branch and Cabin Branch stream mitigation sites are situated in the Tulip Poplar and River Birch-Sycamore associations within the Coastal Plain region (Brush et al. 1980). The River Birch-Sycamore association occurs in bottomlands along most of the higher order streams in the Coastal Plain region, and the Tulip Poplar association is extensive throughout the northern Coastal Plain region. The associations are characterized by the species they are named after, but also include many other species. Other species found within the River Birch-Sycamore association include red maple, poison ivy, Virginia creeper, greenbrier, sweet gum, Japanese honeysuckle, southern arrowwood, tulip poplar, spicebush, black gum, grape, ironwood, American holly, flowering dogwood, black cherry, green ash, white oak, brambles, elderberry, slippery elm, and sassafras (Brush et al. 1980). Many of these species are also found within the Tulip Poplar

association, which includes red maple, flowering dogwood, Virginia creeper, black gum, white oak, sassafras, black cherry, grape, mockernut hickory, southern arrowwood, Japanese honeysuckle, pignut hickory, black oak, poison ivy, greenbrier, beech, spicebush, northern red oak, mapleleaf viburnum, early low blueberry, choke cherry, and brambles (Brush et al. 1980).

The Mill Swamp stream mitigation site is located in the River Birch-Sycamore and Basket Oak associations within the Coastal Plain region (Brush et al. 1980). The River Birch-Sycamore association is described above; the Basket Oak association is an extension of the Basket Oak-Loblolly Pine association beyond the northern limit of the Loblolly Pine, but with fewer strictly Coastal Plain species, and is found on sandy loams and silts (Brush et al. 1980). Other species within the association include sweet gum, black gum, white oak, greenbriers, red maple, sassafras, Spanish oak, willow oak, southern arrowwood, tulip poplar, American holly, black oak, serviceberry, black highbush blueberry, Virginia creeper, coast pepperbush, common highbush blueberry, flowering dogwood, red cedar, scarlet oak, Virginia pine, black cherry, and grape (Brush et al. 1980).

Historically the forests of the region have been drastically altered by logging, agriculture, and other types of development. Many areas now exhibit only secondary and tertiary growth. The American chestnut blight also took a heavy toll on the chestnut population in these forest types. The vegetation within the survey areas has been impacted by alterations to the land and changes to the hydrology of floodplain areas from agriculture, but current land use patterns seem to have little impact on the present-day forest patterns (Brush et al. 1980).

Abundant animal species found in the region include white-tailed deer, raccoon, gray and red squirrel, rabbit, woodchuck, red fox, quail, pheasant, turkey, ruffed grouse, woodcock, and thrush. Muskrat, duck, geese, and heron inhabit the wetland areas. Anadromous fish run in the larger drainages. Evidence recovered from archeological sites in the area indicates that pre-contact peoples would have been able to exploit a similar range of fauna (Steponaitis 1983:31). Also, in the estuarine zones nearby, shellfish would have been seasonally abundant.

MODERN CLIMATE

The modern climate of Anne Arundel County is continental, with well-defined seasons (Kirby and Matthews 1973:2). The Chesapeake Bay serves to moderate extreme temperatures in the area (Kirby and Matthews 1973:2). Annual precipitation in the county averages 42 inches, with the greatest monthly precipitation falling in August. The growing season generally ranges from 194 days in the interior portions of the county to 232 days near the coast, falling between the months of April and October. Prevailing winds are from the west-northwest but are more southerly during the summer months (Kirby and Matthews 1973:3).

The modern climate of Charles County is continental, with well-defined seasons (Hall and Matthews 1974:90). The Chesapeake Bay and the Potomac River serve to moderate extreme temperatures in the area (Hall and Matthews 1974:90). Annual precipitation in the county averages 47 inches, with the greatest monthly precipitation falling in July and August. The growing season is generally about 187 days, usually falling between the months of April and October. Prevailing winds are from the northwest to west-northwest but are more southerly during the summer months (Hall and Matthews 1974:91).

The modern climate of Prince George's County is humid, temperate, and semi-continental (Kirby et al. 1967:2). Summers are generally warm due to the moist air from the Gulf of Mexico, but sometimes cooler air flows from off the Atlantic Ocean. Winters are generally cool, influenced by central Canadian air masses, but these are often moderated while passing over the Appalachian Mountains (Kirby et al. 1967).

Annual precipitation in the county averages 45 inches, with the greatest monthly precipitation falling in August. The growing season is generally 180 days between late April and mid-October.

PALEOENVIRONMENT

Documenting changes in climatic and ecological conditions across two geological epochs is critical to gaining an understanding of cultural and environmental adaptations during occupation of the North American continent. The occupation of the New World began during the later part of the Pleistocene (glacial) epoch and extended through the Holocene (recent) epoch, spanning 12,000 years. The transition between these epochs itself is particularly important because it is at this point that some of the most dramatic changes in environmental and ecological conditions occurred.

Any paleoenvironmental reconstruction must consider the changes in sea levels and climatic conditions as they would have influenced the floral and faunal resources of the region. With the vast amounts of water incorporated within the glaciers of the Late Pleistocene, sea levels were reduced by as much as 300–500 ft. At the end of the Pleistocene, the glaciers began to retreat, resulting in a substantial sea level rise. What was once the ancestral Susquehanna River valley became drowned to form the estuarine environment of the Chesapeake Bay. Several researchers differ in opinion as to the rate of sea level rise, as either decreasing throughout the centuries (Wesler et al. 1981) or staying constant through the centuries.

Forests of the region were predominantly spruce-pine, with some mixed hardwood (Wesler et al. 1981; Whitehead 1973; Wright 1981), but it is probably that the overall plant and animal communities were more complex and “disharmonious” than at present and were composed of a combination of modern and currently extinct species (Graham and Lundelius 1984; Kelly and Todd 1988:232). In general, regional environments seem to have been more “patchy” and less homogeneous than the modern eastern woodlands. The climate of the glacial terrain was probably characterized by relatively cool summers and mild winters.

The patchy, park-like vegetation of the full glacial period was replaced with northern hardwoods during the late glacial period between 15,000 and 10,000 years ago. The climate became harsher, with more severe winter extremes in temperature. This period of rather dramatic ecological change coincided closely with the earliest movement of human groups in the eastern United States. The most apparent modification to regional communities during this ecological change involved extinction of numerous species. Meltzer and Mead (1983) suggest that by 10,000 B.P., as many as 35 different genera of mammals may have already vanished from North America.

The modern faunal and floral communities of the region were becoming established as early as 12,500 B.P. (Delcourt 1978). Spruce-pine forest gave way to modern oak-hickory forest as early as 6000 B.C. Pleistocene megafauna gave way to deer and smaller mammals as a result of the changing environment. These floral and faunal changes had a marked effect on the cultural adaptations the regional inhabitants made during the pre-contact period. Those adaptations are reflected in the known artifact assemblages for each temporal period as discussed below.

This page intentionally left blank.

3. CULTURAL OVERVIEW

PRE-CONTACT CONTEXT

The pre-contact sequence of the region is based on research conducted in the Middle Atlantic region. The general sequence for the northern and central portions of the eastern seaboard begins with the Paleoindian period, followed by the Archaic period, and ends with the Woodland period. The following sections describe these periods in more detail. Detailed summaries of the specific evidence used in the development of this record are presented by various authors (e.g., Custer 1983, 1989; Dent 1995; Gardner 1982, 1987; Steponaitis 1986; Wesler et al. 1981; Wright 1973).

The Paleoindian Period (ca. 10,000–7500 B.C.)

The first extensive human occupation of the Middle Atlantic region for which we have significant evidence occurred around 10,000 B.C. The chronology of the Paleoindian period has been the subject of much ongoing debate in recent years, however, and there is increasing evidence of earlier occupation of the Middle Atlantic region. One site in particular, the Cactus Hill site (44SX0202) in Sussex County, Virginia, contains well-documented pre-Clovis material in intact contexts, and further excavation may indeed one day alter our picture of the initial settlement of the North American continent (Boyd 2003; McAvoy and McAvoy 1997). For now, the most comprehensive model of the Pleistocene settlement of North America consists of a broadly defined Paleoindian culture (see Meltzer 1988). Cold winters and moist summers characterized this period, and coniferous forests of spruce and pine dominated the region. However, during the later Boreal climatic episode, there was an increase in the stands of deciduous trees such as oak, hickory, and chestnut, and a reduction of grasslands in Pennsylvania and Maryland (Carbone 1976; Custer 1984). Today's Chesapeake Bay was the southern extension of the Susquehanna River during the Paleoindian period, and the tributaries of the ancestral Susquehanna River were freshwater.

The Paleoindian period is characterized by fluted, lanceolate Clovis, and Clovis-variant projectile points. A regional projectile point chronology for this period involves a sequence beginning with Clovis, transitioning to lanceolate unfluted or minimally fluted, and ending with Dalton (Dent 1995:125). Some researchers consider the early side and corner notched projectile point types, such as Palmer, Amos, and Kirk, as diagnostic of late Paleoindian period occupations (Custer 1989:88; Gardner 1987). A fairly standardized tool kit including graters, endscrapers, denticulates, spokeshaves, perforators, knives, *pièces esquillées*, and unifacial flake tools also is associated with the Paleoindian period. Overall population density during the Paleoindian period may have been relatively low, as shown by the infrequent occurrence of sites and the typically low numbers of artifacts.

The traditional view of Paleoindian life in the east characterizes the people as highly nomadic, specialized big-game hunters, living off and perhaps driving to extinction the late Pleistocene megafauna such as mammoth, mastodon, bison, and horse. Evidence from the Chesapeake Bay area, however, shows that although large game such as deer and elk were hunted, a more diversified subsistence strategy that included the exploitation of plant and marine/riverine resources was practiced (Davidson 1981:12; Dent 1995:128). Tools of this period are primarily multipurpose and expedient, which suggests a flexible adaptive strategy, high mobility, and a pattern of periodic aggregation and dispersal (Dent 1995). The Paleoindian settlement pattern traditionally is interpreted based on a presumed reliance on high-quality lithic material (Gardner 1989). Artifacts associated with this period in the region, however, include a high percentage of noncryptocrystalline material. Off-site finds are primarily cryptocrystalline cherts, while site material includes quartz and quartzite in significant amounts (Dent 1995:127). Goodyear's (1989) theory presents a possible explanation for the dichotomy. The cryptocrystalline material is highly curatable, which would be a necessary quality during hunting expeditions outside the lithic resource procurement area.

The more attractive locations for exploiting natural resources along the ancestral Susquehanna River would have been on or near the headwaters of small streams or creeks where poorly drained soils, such as those of the Elkton and Othello series, are found (Lowery and Phillips 1994:33). In Paleoindian times these would have been interior freshwater wetlands, but due to the rising sea level are now saltwater marshes. Bathymetric research by Blanton (1996) indicates that the Pleistocene lands now submerged in the Chesapeake Bay along the east coast are also likely to harbor Paleoindian sites. Tidal forces on such submerged sites may explain why, within the Lower Delmarva region, the coastline along Tangier Sound is one of the two main areas from which Paleoindian points have been reported, the other being the interior drainage of the middle Pocomoke River (Davidson 1981:11). Some indication also is found that site location choices were designed to provide protection from the elements. One common pattern consists of southern exposure sites adjacent to topographic features that provide shelter from prevailing winds (Dent 1995:124).

Locations of Paleoindian artifact finds can be categorized as “site” or “off-site,” with sites containing evidence of habitation based on artifact densities and off sites characterized by isolated finds. Numerous Paleoindian off sites have been identified in the Chesapeake Bay area, but relatively few sites are documented. This could be partly due to the fact that many sites are presumed submerged, as mentioned above. Three main concentrations of Paleoindian sites or isolated find locations are identified in the Upper Delmarva Peninsula (Custer 1989:103). One concentration area is centered around the Delaware Chalcedony Complex, a large outcrop of cryptocrystalline material; one concentration of sites is located at the mouths of the Choptank and Nanticoke rivers; and one cluster of sites is found along the mid-peninsular drainage divide (Custer 1989:94). Custer (1989) believes that Paleoindian sites clustered along the upper reaches of the mid-peninsula drainage divide are base camps; however, Lowery and Phillips (1994:33) feel that they are temporary camps. They interpret the sites clustered along the ancestral Susquehanna River drainage divide as base camps because of the availability of resources, particularly high-quality lithic material, and artifact densities and distributions.

Most of the evidence of Paleoindian occupation in the Middle Atlantic area comes from isolated surface finds; however, the number of sites catalogued for this period (and earlier) having extensive artifact assemblages in secure context has been increasing in recent years. The Thunderbird site in the Shenandoah Valley is one of the well-documented sites of this time period. The Paw Paw Cove site in the northwestern part of the Delmarva Peninsula contains Paleoindian occupation levels in buried deposits (Dent 1995). In Anne Arundel County, work by the Maryland Geological Survey, Division of Archeology (Curry and Ebright 1990; Ebright 1992) identified buried Paleoindian and Early Archaic components at 18AN489, the Higgins site. Typical Paleoindian artifact types were recovered, including Clovis projectile points, scrapers, denticulates, cobble tools, spokeshaves, and perforators. Although the site is probably a residential base camp, its location does not afford it protection from the elements, which may indicate that it was occupied during the warmer part of the year (Dent 1995:140).

Understanding of the regional Paleoindian period has been substantially augmented by excavation and analysis of the Higgins site in Maryland (Ebright 1992). One important finding there is that it is not, like Thunderbird and many others, a lithic quarry site, but rather more like McAvoy’s Coastal Plain sites (McAvoy 1992, 1994). Hickory phytoliths and turkey feather fibers from the Higgins site broaden the observed range of southern Paleoindian subsistence practices. Also, the site revealed a predilection for crystal quartz in point manufacture. The high tool-to-debitage ratio marks it as a certain short-term camp with curated tools, indicating distance from preferred lithic sources. Two-thirds of the lithics are from exotic sources, with suspected sources ranging from the Hudson Valley to southern Virginia.

The Archaic Period (ca. 7500–2000 B.C.)

The Archaic period (ca. 7500–2000 B.C.) formally began with familiar Holocene conditions of a temperate ecosystem and the formation of the Chesapeake estuary. It has been divided into three subperiods: the Early, Middle, and Late Archaic. The Archaic saw a relatively long and successful foraging adaptation, with subsistence based on hunting, fishing, and the collection of wild plant resources. Diagnostic projectile points form the primary criteria used to identify and date these occupations in the Middle Atlantic region.

Two projectile point series identify the Early Archaic in the area (Custer 1989; Davidson 1981; Dent 1995; Gardner 1987; Wesler et al. 1981). The earliest series (ca. 7500–6500 B.C.) includes the corner notched Palmer, Charleston, Amos, and Kirk types and side notched Hardaway, Kessel, and Warren types. The later series (7000–6000 B.C.) includes the bifurcate St. Albans, MacCorkle, LeCroy, and Kanawha types, as well as Kirk stemmed projectile points. The frequency of unifacial tools decreased and bipolar technology was introduced as cobble quartz use increased. Groundstone tools that are first flaked, then ground, appear in the tool kit on Early Archaic sites. The sites are generally small during this period; only a few large Early Archaic sites have been identified (Dent 1995:170). The Chance site is an Early Archaic site on the lower Delmarva Peninsula that has produced hundreds of notched and bifurcate projectile points, all from the surface (Cresthull 1971, 1972).

During the Middle Archaic along the Middle Atlantic coast, ca. 6000–4000 B.C., the cooler, drier conditions of the Early Holocene gave way to the warmer, wetter climate of the Middle Holocene interval. Subsistence economies became increasingly diversified as new resources were being exploited seasonally (Custer 1989). Technologically, the transition from the Early Archaic to the Middle Archaic is characterized by the appearance of stemmed rather than notched projectile points (Custer 1989). Stanly (ca. 6000–5500 B.C.), Morrow Mountain I and II (ca. 5500–3500 B.C.), Guilford (ca. 3500–3000 B.C.), and Halifax/Vernon (ca. 3000–2000 B.C.) projectile points mark the Middle Archaic period in the general region, following the classic Archaic sequence first identified by Coe (1964) for the North Carolina Piedmont.

Groundstone tools commonly were pecked and then ground during this period and multifunctional bifacial tools were prevalent (Dent 1995:176). As in the Early Archaic, the trend toward an increased reliance on local lithic sources continued. Evidence from the Higgins site suggests that a rhyolite trade system was becoming established with the importing of rhyolite blanks from the north (Dent 1995:176). Interior wetland areas were the primary site locations during this period.

The Late Archaic period, ca. 4000–2000 B.C. in the area, is identified by two series of diagnostic projectile point types. The earlier, narrow blade series includes Vernon, Claggett, and Piscataway types, and the later, broad blade series includes Savannah River, Susquehanna, and Perkiomen. Orient Fishtail and Dry Brook projectile types, as well as the broad blade types and steatite pottery commonly are associated with the later portion of the Late Archaic, often referred to as the Terminal Archaic in the northeast. Both the Late and Terminal Archaic periods are subsumed under Custer's (1989) Woodland I period.

During the Late Archaic period, regional populations appear to have grown markedly and, with the culture associated with broad blade technology in particular, to have concentrated in riverine and estuarine settings. Climatic conditions were warm and dry, and the transition from a pine-dominated boreal climate to an oak- or deciduous-dominated temperate climate was completed during this period. Sea level appears to have been relatively stable, with only minor fluctuations on the order of 1 to 2 m (Blanton 1996; Carbone 1976; Tanner 1993).

Grinding implements, polished stone tools, and carved soapstone bowls became fairly common, suggesting increased use of plant resources and possibly changes in subsistence strategies and cooking technologies. Although evidence is minimal, the first experiments with horticulture probably occurred at this time, with

the cultivation of plants such as squash, sunflower, and chenopodium (Cowan 1985; Ford 1981). Data from the Higgins site and other Late Archaic sites in the region show that among the exploited resources were deer, turkey, beaver, raccoon, opossum, berries, wild legumes, fish, oyster, and clam (Dent 1995:198).

Settlements appear to have shifted from swampy upper reaches of inland streams to the mouths of major streams and rivers (Davidson 1981:14). They also seem to have been occupied for longer periods of time than in earlier eras; as the climate became more temperate, resources became more predictably established across the landscape. The existence of formal residential base camps occupied seasonally or longer is inferred, together with a range of smaller, resource exploitation sites such as hunting, fishing, or plant-collecting stations (Gardner 1987). This major shift in settlement patterns and subsistence strategies is the feature noted by Custer (1989:186) for determining the boundary between Archaic and Woodland period cultures in his alternative temporal scheme.

The Woodland Period (ca. 2000 B.C.–A.D. 1600)

The Woodland period began about 2000 B.C. and continued until permanent European settlement in the early 17th century. Across the eastern Woodlands, this period is marked by the appearance of pottery, a greatly increased role for horticulture in subsistence economies, and an elaboration of mortuary ceremonialism, including the appearance of burial mounds associated with the Adena cultural development. The Woodland period is subdivided into early, middle, and late intervals.

Early Woodland occupations (ca. 2000 B.C.–A.D. 500), which are thought to reflect a more or less unchanged continuation of preceding Late Archaic lifeways, are characterized by steatite tempered plain and cordmarked pottery and small, Rossville and Calvert projectile points. The broadspear projectile points were gradually replaced during this time with small lanceolate, notched, and stemmed types constructed on a variety of lithic materials (McLearen 1991). Bone and shell tools and ornaments became prevalent (McLearen 1991). Woodland occupations are generally marked by improvements in food storage (Mouer 1991:26) and preparation technologies. Subsistence strategies were a continuation of earlier hunter-forager ways, with an increased reliance on the cultivation of native plants. Pit, hearth, and house pattern features all suggest a high degree of residential stability not seen on earlier base camp occupations of the region (Custer 1989:198). The settlement system involves macroband base camps supported by microband base camps and associated procurement sites (Custer 1989:189).

The transition from Archaic period carved soapstone bowls to Woodland period ceramics developed as, throughout most of the region, such types as Marcey Creek plain and Seldon Island cordmarked were molded to resemble their soapstone predecessors (Mouer 1991). Broken soapstone bowls possibly were crushed into temper for the manufacture of the ceramics. Where soapstone was unavailable, other materials may have served the same function in the Early Woodland. Early Woodland period ceramic types that occur in the region include Marcey Creek and Accokeek. Marcey Creek ware is coil constructed or hand molded and tempered with crushed steatite (Egloff and Potter 1982). Accokeek wares are thin walled and tempered with sand and/or crushed rock; they include plain and cordmarked surface treatments (Stephenson and Ferguson 1963).

Middle Woodland period (ca. 500 B.C.–A.D. 900) characteristics include bone and shell artifacts, a preference for local lithic material, and evidence of increased sedentariness (Dent 1995). Rossville, Selby Bay, Jack's Reef, and Fox Creek projectile point styles are typical of the Middle Woodland period in the Middle Atlantic region (Ebright 1992; Potter 1993; Stephenson and Ferguson 1963). Ceramic wares associated with this period include sand or quartz tempered, net impressed Pope's Creek wares, and later, the Mockley cordmarked, net impressed, and plain, shell tempered wares (Egloff and Potter 1982). In general, net impressed designs replaced the earlier cordmarking. Evidence from the late Middle Woodland component of the Plum Nelly site in northern Virginia indicates that wild turkey and white-tailed deer

comprised the major food sources, accompanied by oyster, hickory nuts, and acorns (Potter 1982:329). Horticulture continued to be important in subsistence practices, and the cultivation of maize began in some areas, although it did not assume a major role in subsistence until later. Shellfish were highly exploited in the early part of this subperiod and large shell middens date to this period along the coast. One major Adena site has been identified in Anne Arundel County (18AN18); however, Adena artifacts are rare in the Patuxent River area (Steponaitis 1986).

The later stage of this subperiod is characterized by a major change in settlement and subsistence strategies, perhaps an adaptation to the changing climate (Potter 1993:110). Settlement patterns in the region exhibit an apparent shift from smaller stream locales to more sedentary village sites along major streams and estuaries. A decline in residential mobility and an increase in logistical resource procurement have been proposed (Steponaitis 1986:285). The establishment of trade and exchange networks are evident, and increased use of non-local material is seen. Distinct cultural groups with boundaries and localized styles emerge during this period. A cultural boundary along the Piedmont/Coastal Plain fall line becomes apparent, with the Siouan speakers on the west and the Algonquian speakers on the east side (Dent 1995:242; Potter 1993).

The Late Woodland period (ca. A.D. 900–1600) in the area, as elsewhere, is marked by the development of maize horticulture and a more rigid social organization along with more highly organized village structures. Shellfish gathering and hunting continued to provide a great deal of the diet, although growing reliance on horticulture is evidenced. There is evidence that subsistence practices involved large-scale drying of fish and oyster meat for storage and trade during this period (Waselkov 1982:207).

Artifacts diagnostic of the Late Woodland period include ceramic wares such as the Townsend and Rappahannock series, with fabric impressed exteriors and shell temper (Egloff and Potter 1982). Later types include Potomac Creek plain and cordmarked, thin bodied wares with crushed quartz or sand temper, and Sullivan Cove cordmarked and plain. Various sizes of triangular projectile points are diagnostic of the later Woodland periods. This change is generally linked to the introduction of bow and arrow technology in the eastern United States. A temporal sequence for this period beginning with the large triangular projectile points shifting to smaller Levannas, and finally to the small Madison and Potomac types is noted (Potter 1993).

Toward the end of the Late Woodland period (A.D. 1300–1600), social organization changed. Populations declined, and once dispersed hamlets were replaced by closely aggregated villages fortified with stockades. The use of local lithic material became more common. Because they are so much larger and are often stockaded, settlements of this time period indicate increased populations, which may in turn be evidence of increased sedentariness (Custer 1989). Ossuary interments are the common mortuary practice in most of the Mid-Atlantic region, but not along the Patuxent River (Barse 1988:39). Evidence is accumulating that territorial boundaries between chiefdoms were closely maintained. Intergroup hostility escalated into endemic warfare by ca. A.D. 1500 (Potter 1993). European conquest brought an end to the Late Woodland lifestyle, although many relics of the material trappings, belief systems, and social structure of classic late Woodland society lingered into the 18th century.

HISTORIC CONTEXT

Contact and Early Settlement (ca. A.D. 1500–1750)

The contact period was characterized by the interactions of Native American groups and a transition from the hegemony of those groups and their concerns to one dominated by Europeans. The transition was made at the expense of the integrity of the native populations and proceeded to an era wholly controlled by immigrant social institutions. By about the 14th century, the Chesapeake Bay area of Maryland was occupied

by Algonquian-speaking groups, the Piscataway on the western shore and the Nanticokes on the eastern shore (Stephenson and Ferguson 1963). Up the Susquehanna River resided the Susquehannocks, who controlled the key route of communication and trade between the Chesapeake Bay region and the Iroquois in New York. The first documented European contact with Chesapeake Bay natives dates to 1585, when John White visited the area and made drawings of the local people. In 1608, John Smith traveled around the Chesapeake, mapping natural features and the locations of native villages, including the chief village of the Piscataway on Accokeek Creek.

Permanent settlement of Maryland by Euro-Americans began in 1634, when two ships of British immigrants (the *Ark* and the *Dove*) established St. Mary's City at the mouth of the Potomac River. The settlement was on land granted on the north side of the Potomac to the first Lord Baltimore, George Calvert. Their first landing on what was later to become part of Maryland occurred on Heron Island, now known as St. Clement's Island. Governor Calvert, Cecil Calvert's younger brother Leonard, negotiated purchase of land adjacent to the east shore of St. Mary's River from the Yaocomaco. The Yaocomaco represented the local component of a confederacy of Piscataway groups living along this portion of the Chesapeake and its tributaries. They were apparently preparing to abandon a village and the English were able to take advantage of the existing structures and cleared fields (Shoemaker 2000). The English constructed a palisaded fort, dwellings, and a watermill (Shomette 2000:5). This small village, first called "Augusta Carolina," became St. Mary's City, the first capital of Maryland. Although St. Mary's County, which originally included the area that became Anne Arundel County, was not officially legislated until 1695, it was referred to in official correspondence as the "County of St. Maries" by at least the late 1630s (Riley 1905).

The presence of the English adjacent to the waterways forced the Piscataway to move north. The Piscataway allied themselves with the English settlers in hopes of gaining power against groups of Massawomecks and Susquehannocks that claimed part of their territory, and there was a series of engagements between alliances of the Chesapeake Bay Native American groups and the English against the Susquehannocks (Kent 1984). By 1676 the Susquehannocks were destroyed as a result of being caught between the Iroquois and the Maryland Colony. The Piscataway were granted a reservation around Mattawoman Creek, Piscataway Creek, and Timothy Branch, and efforts were made by the Jesuits to Christianize them. The boundaries of the reservation were not respected by European settlers, however, and the Piscataway were much reduced in population by disease. Remnants moved onto a succession of Potomac River islands and finally by 1700 joined Native American groups in Pennsylvania. Within 20 years of the founding of St. Mary's, the presence of the native population of the area was much reduced (Beauregard et al. 1995:II:8).

Cecil Calvert's son Charles oversaw the settlement of the colony of Maryland after his uncle's death. Generous land grants were made to all settlers who paid their way across the Atlantic, while those who could not pay worked as indentured servants for a set number of years, after which they could purchase land (Kellock 1962:6). George Calvert had converted to Catholicism and it was his dream that his colony promote religious tolerance. His children attempted to carry out his vision, and the colony of Maryland attracted a diverse population from England, Wales, Scotland, Ireland, and France. Early settlements were located along the navigable waterways of the Chesapeake Bay area. Settlements around the mouth of the Patuxent River were established by Jesuit missionaries in the late 1630s. The early settlers of the area were from a variety of backgrounds, primarily drawn from the British Isles but also including some families of French descent. Most were engaged in farming on some level, but many supplemented their income by pursuing a variety of trades such as coopering, smithing, carpentry, and trading with England, other settlers, and the Native American population.

One early challenge to the developing colony occurred in 1645 when St. Mary's City was invaded and captured by forces under the command of Richard Ingle. Ingle's ship had been impounded and he was briefly imprisoned during a 1644 trip to Maryland. He had been overheard uttering treasonous words and was arrested but mistakenly allowed to escape. Although he continued trading with Maryland colonists

throughout the next year, he apparently retained ill feelings regarding that event. Unfortunately, Governor Leonard Calvert was in England visiting his brother, Lord Baltimore when the event took place and those acting in his stead mishandled the affair. When Ingle returned to the colony in 1645, it was with a captured Dutch ship and the excuse of a recently enacted Parliamentary law allowing all loyal subjects the right to take by force any ships known to have traded with those hostile to the *de facto* government, the Puritan Parliament. Whether this was a patriotic attempt to aid the English government in its bid to oust Catholics from positions of power or a self-centered attempt at retribution for past insults is unclear. Governor Calvert, many colonists, and a number of Jesuit priests fled to Virginia, property owned by Catholics was seized, and the chapel at St. Mary's City was destroyed. This two year period of Maryland's history, known as "the plundering time" was ended when Governor Calvert, with a force of Virginians and Marylanders, returned to St. Mary's City just before Christmas of 1646 and took back the colony, meeting no resistance (Hammett 1991:39).

A second challenge to the colony occurred just a few years later when Puritans from Virginia who had been invited to seek refuge in Maryland after Virginia's governor refused to acknowledge the authority of Cromwell's Commonwealth, decided that they should take over the government of Maryland. They had settled in Providence (later Annapolis) in 1650 and sent elected delegates to the General Assembly. The county of "Annarundel" was formed that year by Act of the Assembly, and was probably named for Lady Baltimore whose maiden name was Lady Anne Arundel and who was recently deceased (Riley 1905). Anne Arundel County was reduced in 1851 by the formation of Howard County from the northwestern portion of the county.

By 1651 the Puritans of Providence were refusing to take an oath of loyalty to Lord Baltimore or to send delegates to the General Assembly. Richard Bennett and William Clayborne, commissioners sent by Cromwell, seized control of the government by force in 1652, facilitated by the immediate capitulation of Maryland's Governor Stone who quickly resigned to prevent bloodshed (Hammett 1991:39). Anne Arundel County was briefly renamed Providence County by the Puritans. In 1655, Governor Stone was informed that Lord Baltimore's patent had never been revoked by the Commonwealth, and he was chastised by Lord Baltimore for resigning his post so readily (Riley 1905). Stone then lead a group of Marylanders against the supporters of the Commonwealth at the Battle of the Severn. Stone was unsuccessful and many Maryland residents were killed, wounded, or taken prisoner. By 1658, Lord Baltimore was able to obtain a formal declaration of the restoration of his proprietary rights from Oliver Cromwell, freedom of religion was restored to the colony, Puritans were granted amnesty or allowed to leave the colony, and Anne Arundel was once again ruled by a governor appointed by Lord Baltimore. A brief attempt on the part of this newly appointed governor, Josias Fendall, to again wrest power over the colony from the Calverts ended with his dismissal and the appointment of Philip Calvert as Governor.

Also in 1658, Charles County was formed, named after Charles Calvert, third Lord Baltimore, who later (1675–1689) was Lord Proprietor of the colony. The original county courthouse, built almost two decades later, was placed at Moore's Lodge near La Plata, and the county seat was moved to Charles Town (later renamed Port Tobacco) in 1729. The courthouse in Port Tobacco burned down in 1892, and the county seat was moved again, this time to La Plata, in 1895. The county was reduced by the formation of Prince George's County in 1695.

George Calvert had originally intended that fur trading be the major sustaining industry of the colony; however, colonists soon learned of the profitability of growing tobacco and this quickly became the dominant trade commodity. A series of proclamations and ordinances were issued by the Calverts beginning in 1669 to attempt to legislate and control trade, particularly the tobacco trade, in the new colony. The ordinances and proclamations specified in which towns merchants were permitted to load and unload goods and provided instructions for surveying and laying off town lots in each designated area. The goal was twofold—to create towns in order to attract more people to the area and to make sure the colonial

government was receiving all taxes due. New towns were added to the list and some were removed over the years, but in general the initiative failed miserably (Shomette 2000). This is primarily due to the nature of the crop, tobacco, which forced people to spread out across the area and to already be located adjacent to an adequate transportation route, such as the Potomac and Patuxent rivers and their navigable tributaries. Farmers were able to load their crop onto a seafaring vessel from a small landing on their property and saw no reason why they should make an arduous journey to a designated town just to pay taxes.

From its earliest years, tobacco was the reason for the success of the Maryland colony. It was grown by large and small farmers alike and the fortunes of all rested on tobacco prices. The largest fortunes were not built entirely on tobacco, however. The wealthiest planters in Maryland were also merchants, who purchased their neighbors' tobacco in exchange for imported goods shipped to their stores from Britain, the Caribbean, and elsewhere (Carr n.d.:5–6). River landings of wealthy plantation owners became *de facto* towns during the 17th and early 18th centuries in Maryland. An individual farmer with the help of his family could only tend to a few acres of tobacco, which required a great deal of attention during the growing process. During the 17th century, cheap labor was plentiful in the form of indentured servants, the numerous dispossessed of England who were willing to endure a period of servitude for a chance at a new life in the colonies. By the early years of the 18th century, however, the supply of indentured servants from England had dwindled, and Maryland farmers turned to slaves for reliable and inexpensive labor (Virta 1991:38).

Rural Agrarian Intensification (A.D. 1680–1815)

Although Maryland had been founded on the idea of religious toleration, and the Calverts and some of the earlier settlers were Catholic, most of the early Maryland colonists were not. Earlier attempts by Ingles and Fendall and the Puritans to subvert the local government, which was viewed as Catholic only because of Lord Baltimore's involvement, were only briefly successful. In 1689 a group of Protestants lead by Charles County sheriff, John Coode, organized in Chaptico and marched to St. Mary's City to lay siege to the Upper House of the Assembly. From that time until the American Revolution, Maryland was governed by a royal governor.

The 1683 session of the General Assembly was convened in Anne Arundel County, which was deemed a central location for the province. Lower House members requested that Lord Baltimore designate a specific location for all future sessions to which he replied that if they were to erect sufficient public buildings for such a purpose on the South River, he would make use of those facilities as long as they remained convenient (Riley 1905). It was not until 1694, however, when the seat of state government was officially moved from St. Mary's City to Annapolis. Annapolis continued to grow rapidly and was incorporated as a city in 1708.

Initially, the land around the Patuxent River was part of Calvert County. By 1695, approximately 1,600–1,700 people lived along the Patuxent and Potomac rivers (Stone 1987:11; Virta 1991:28–31). By 1695 a post road extended from Annapolis to Upper Marlboro, and from about 1700 until the end of the Colonial period, lands north of Mattawoman Creek were cleared and put into cultivation. Maryland Governor Francis Nicholson and the General Assembly agreed that a new county should be formed, and on St. George's Day, April 23, 1696, the county was established. It was named for Prince George of Denmark, the husband of Princess Anne, heir to the throne of England. Prince George's County stretched north to the border with Pennsylvania and represented Maryland's western frontier until 1748, when surrounding counties were established (M-NCPPC 1992:49). Charles Town, about three miles southeast of the present county seat of Upper Marlboro, served as the center of Prince George's County government until 1721.

The population of the area did not see a significant increase until after the Civil War, as those who were not members of aristocratic families moved on to find greater opportunity elsewhere (Beauregard et al. 1995:II:10; Virta 1991:40–41). The investments in land and slaves necessary to generate great wealth

worked to stratify Maryland society during the Colonial period. Well-connected families passed their accumulated wealth on to their children, and it became more and more difficult for a common farmer to buy land. The unavailability of good land also contributed to the decline of indentured servitude as a source of cheap labor. Land was often the payment given for service, and as it dwindled, fewer such contracts were negotiated. Slavery offered a lifetime of labor for the slaveowner but required a greater initial outlay of capital. As a result, plantations were further concentrated into the hands of the largest and wealthiest landholders, who had the resources and credit to acquire a large slave labor force. Slaves accounted for a major percentage of the population increase during the first three-quarters of the 18th century. Slaves, who made up only 18.1 percent of the population of the state in 1712, represented nearly half of the population (44.7 percent) by 1782. By 1750 as many as half of the residents of Prince George's County owned slaves, although most owned only a few (Virta 1991:38). The presence of this large and distinct ethnic group influenced not only politics and the social order, but cuisine, music, and literature as well.

The middle of the 18th century is often regarded as the "golden age" of the tobacco culture. Tariff protection by Britain and a burgeoning market for tobacco on the Continent contributed to a rise in prices after a 30-year slump that began in 1670. In addition, improved agricultural methods increased yields and reduced labor costs. Again, the largest landholders benefited from the turnaround in the market, as they had been best able to weather the difficult times (Beauregard et al. 1995:II:11–12). Although tobacco was the principal cash crop in the region during the 18th century, farmers did develop other regimes to supplement the income from tobacco. Other items produced for export on Prince George's County farms during this period included corn, wheat, pork, and lumber. Other items produced for export on Anne Arundel County farms during this period included wheat, corn, and oats (Riley 1905). In addition, numerous gristmills, primarily water powered but some horse powered, began operation during this period. Nevertheless, tobacco remained the chief concern of farmers in this part of Maryland.

Community life in 18th century Maryland centered largely on clusters of plantations. Much trade was conducted at river landings and small crossroads settlements. Upper Marlboro, in the heart of a rich tobacco-growing region, developed as Prince George's County's only major town. Artisans, innkeepers, merchants, and professionals established themselves there, and locals and visitors enjoyed horse racing, theater, and music. Supplies for the farm, including slaves, could be purchased in town. By 1718, it had become such an active center that the county residents petitioned to have the county court meetings held there (M-NCPPC 1992:50). The county seat was moved to Upper Marlboro in 1721.

In 1747, tobacco inspection warehouses were established by the state in six towns to help standardize the tobacco trade and encourage the growth of towns. These towns did prosper as a result, but much of the activity still took place at the rural churches, stores, mills, blacksmith shops, and taverns scattered in the countryside (Virta 1991:39–40). A map of the state in 1794 (Griffith 1794) indicates that there were only a few towns in the region at that time. Besides towns, churches and mills provided centers for social interaction.

Despite being governed by a royal governor, delegates from Maryland counties met three times during the second half of 1774 to discuss appropriate responses to England's unpopular new system of taxation. Maryland delegates formed a new government in August of 1775 organized as the Council of Safety (Shoemaker 2000). Maryland delegates to the Continental Congress, however, did not at first support the Americans' bid for independence and encouraged attempts to reconcile (Shoemaker 2000). By the end of 1775, two governments were acting in Annapolis, one acknowledging King George III as their lawful sovereign and one asserting the independence of the colony (Riley 1905). Annapolis "became daily more and more deserted" (Riley 1905:75). In early 1776, the Council of Safety began erecting fortifications and earthworks at strategic points along Anne Arundel County's waterways in anticipation of a British attack. In June 1776 the Maryland Convention reversed its opinion, and sent word to their delegates to vote for independence (Shoemaker 2000).

Thomas Johnson, the first governor of the state elected by the people, was inaugurated on 21 March 1777. During the American Revolution, British ships harassed the Maryland shoreline and made foraging trips inland, but no significant battles were fought in the area. British warships blockaded Annapolis in March 1781, briefly delaying General Lafayette's troops from their march to the head of the bay. Lafayette sent out one small ship, and the British, apparently thinking that a much larger force was immediately behind, retreated down the bay. Lafayette was able to move his troops across the water rather than marching down the peninsula, drastically reducing the time necessary to make their position.

The region saw action associated with the War of 1812. A British flotilla defeated a contingent of U.S. ships in the Patuxent River and secured a landing there. Troops then marched overland to Upper Marlboro, which served as a staging area for the British attacks on Washington, D.C. Tobacco and agricultural production in general continued to dominate the local economy. Prince George's County produced more tobacco and had a larger slave population than any other county in the state. As technological and economic changes in the first half of the 19th century began to alter the character of Maryland, the Western Shore region remained agricultural and aristocratic.

Agricultural-Industrial Transition (A.D. 1815–1870)

Tobacco remained the principal product of the region, and Prince George's County produced more than 37 percent of the state's output in 1840 (Payne and Baumgardt 1990:8). Although it persisted, by the 19th century, tobacco was in decline and was stagnating the local economy. As early as the 1790s, soil erosion had silted in the Patuxent and Port Tobacco rivers, closing the ports of Upper Marlboro and Port Tobacco. Soil exhaustion and low prices made tobacco farming increasingly unprofitable. At mid-century the white population of the county was over 25 percent less than it had been in 1790, and the overall population of the county had also declined as a result of soil exhaustion, low tobacco prices, lack of cheap land, and greater opportunities to the west (Beauregard et al. 1995:II:12; Pogue 1972). The predominance of the plantation system and the control of local politics by old-money families had a stifling effect on commercial and industrial development.

The nation's capital was created from a portion of Prince George's County and Virginia in 1790, and, although it did not achieve cosmopolitan status until after the Civil War, Washington, D.C. did begin to affect the development of the county. In 1835, one of the first railroads in the country opened between Baltimore and Washington, passing through Bladensburg and giving birth to the town of Beltsville, which became a thriving trading center. Another change in the first half of the 19th century was the appearance of large-scale industry. Nicholas Snowden's large gristmill on the Patuxent River was converted to a cotton mill in the 1820s, and with the arrival of the railroad a decade later, a sizable community known as Laurel grew around the mill. Laurel was the first town in the county to owe its existence to industry (Virta 1991:86–87). Most of this development was in the northern part of the county in the corridor between Washington and Baltimore, however. Railroads were not extended to Upper Marlboro until after the Civil War, and many of the communities in the region today developed after the construction of the Baltimore & Potomac Railroad beginning in 1868 (Beauregard et al. 1995:II:13).

Sentiment in the region was primarily with the Confederacy at the outbreak of the Civil War, but the residents realized that proximity to Washington meant that their farms would be a battleground if they chose to secede, and several proposals to secede were defeated (Riley 1905). Some county residents crossed into Virginia to join the Confederate Army and many others who remained at home provided aid and supplies to Confederate forces. Throughout the war, many residents of the area tried to remain neutral, although they rejected any attempts to abolish slavery. Marylanders served in both armies. Many slaves escaped to Washington, D.C. after slavery was abolished there or enlisted in the Union army to secure their freedom (Virta 1991:120–122).

Federal troops under the command of General Butler were sent on 23 April 1861 to occupy Annapolis. Because of the occupation, the General Assembly met in Frederick City instead. No reports of violence against the Federal troops is recorded, but the local newspaper apparently reported that the people of Annapolis were “highly indignant at the occupation” (Riley 1905:96). Some of these southern sympathizers were impressed into service in the construction of fortifications when federal troops learned of General Early’s imminent raid on Maryland in July 1864 (Riley 1905).

Industrial/Urban Dominance (A.D. 1870–1930)

After the Civil War, a return to the plantation way of life was impossible for most, primarily due to the loss of the slave labor force. Large plantations were divided into smaller manageable farms, and new crops such as fruits and vegetables joined the staple crops of corn, wheat, and tobacco. A few had the resources to purchase land; still others left the rural areas in search of opportunity elsewhere, particularly in Washington, D.C. or Baltimore. Meanwhile, the old aristocracy tried to rebuild their lives and fortunes without the help of slave labor. Many of these families never recovered their lost wealth, and in general the agricultural life no longer held the promise of a life of opulent leisure. Instead, most farmers worked modest acreage with the help of their family or tenants. As in other areas where slaves had formed the basis of the agricultural system before the war, after the war, the number of farms increased while their average size decreased significantly. Agricultural production improved after a period of crisis following the war. Although tobacco remained one of the area’s most important crops, truck farming increased as a viable alternative. Transportation improvements permitted a variety of farm products to be more easily shipped and sold in the growing urban markets of Washington, Baltimore, and New York. Anne Arundel County, surrounded by and dissected by waterways, began to commercially exploit the available natural resources and soon, much of the population was involved in the growing seafood industry. The county’s numerous points of access to navigable waterways provided dependable transportation on steamboats for freight and passenger service. Food needs created by World War I increased the marketability of the county’s farm produce and the invention of the cigarette machine in 1881 made tobacco farming profitable again (Hughes 1994). The canning industry was also locally important.

Village life characterized much of the area, as small towns grew to accommodate the needs of the surrounding farmers. Public school systems were established, which eventually attracted students from well-to-do families away from the private schools and served to create a more egalitarian atmosphere. Laurel remained the only town in the Prince George’s County to be supported primarily by industry rather than agriculture and trade (Virta 1991:136–137). Processing plants such as fruit and seafood canneries did become important industries in small towns along the railroad lines. The first such cannery in the country opened in La Plata in 1883 (Beauregard et al. 1995:II:14).

As Washington, D.C. grew in the years after the Civil War, the notion of suburban living began to surface among the city’s developers. Real estate within the city was prohibitively expensive for modest government clerks and others employed in the city, and gradually houses to accommodate these classes were constructed outside the city. The earliest of these were within the limits of the old Washington, D.C., beyond Florida Avenue. By the 1870s and 1880s, promoters had begun to sell the charm of small towns that had grown up along the Baltimore & Ohio Railroad in northern Prince George’s County, including Bladensburg, Hyattsville, and Beltsville. In those towns were already established schools, churches, stores, and community life that attracted city residents who desired the advantages of country life without the isolation. Not all of the residents of these towns were commuters, as banks, stores, and other businesses were needed to serve the new residents. After the turn of the century, streetcar lines were constructed east of the District along railroad lines originally constructed to serve the summer resort traffic to the beaches of eastern Maryland, and the expansion of the federal government during World War I accelerated the pace of suburbanization.

Suburban development was generally contained in the corridors north and east of Washington until after World War II. Despite the growth along this suburban corridor, the southern part of Prince George's County and much of Anne Arundel and Charles counties remained rural in character, dotted with small towns and crossroads communities. Most of the residents of this area continued to make their living from agriculture or by providing services to farmers into the 20th century (Virta 1991:190–191).

Modern Period (A.D. 1930–Present)

A second wave of suburbanization followed the growth of the federal government brought about by the New Deal, but the most important changes involved transportation improvements. Route 301 and the Potomac River Bridge were completed in 1940, creating a corridor used by tourists and truckers between New York and Florida, and contributing to commercial development along the route. Use of the Route 301 corridor declined after the construction of Interstate 95 in the late 1960s. Andrews Air Force Base, originally known as Camp Springs Army Air Field, opened in 1943, attracting permanent residents to the area. The base was expanded in the 1960s and again in the 1970s. The current trend is toward decreased agricultural and increased residential use in the area. Road improvements to Route 50 and Route 450 have allowed easier access to the outlying D.C. metropolitan areas. Numerous new suburban neighborhoods and shopping centers are planned, in progress, or completed. Anne Arundel County became a tourist destination, and hotels and cottages were constructed to take advantage of the county's natural attractions—sandy beaches and numerous waterways. Beach resorts, such as Beverly and Triton were developed in the 1930s and are now part of the county park system. More recently, numerous large-scale housing developments have encroached on the basically still rural character of the county.

Today, many Prince George's County and Anne Arundel County residents, as well as commuters from outer counties, work in the federal institutions in the area, including Andrews Air Force Base, Fort George G. Meade Army Installation, the Census Bureau, Beltsville Agricultural Research Center, and NASA's Goddard Space Flight Center. Extended rail and bus service resulted in the development of outlying towns (Virta 2007). Despite the large commuter population, there remain rural regions where inhabitants earn their living through farming, and to a lesser degree, livestock. Aside from federal agencies and farm-based exploits, others work in rail and air industries, engineering, procurement of building materials (i.e., sand and gravel), food processing, and research agencies (Kirby et al. 1967).

PREVIOUSLY RECORDED CULTURAL RESOURCES IN THE SURVEY AREAS

Cabin Branch (RFP-4) Stream Mitigation Site

Ten archaeological sites are documented within a mile of the Cabin Branch stream mitigation site (Table 3.1). One of the sites, an Early Archaic and Late Archaic lithic scatter (18AN725), is adjacent to the north of the archaeology survey area and LOD. Two other sites are located a short distance outside of the archaeology survey area and LOD, one (18AN726) is a late 19th to 20th century house site and one (18AN743) is a short-term resource procurement site with Early Archaic and Late Woodland period components. Other sites within a mile of the stream mitigation site include lithic scatters dating to unidentified pre-contact time periods (18AN1303 and 18AN1547 [which also contains a late 19th to early 20th century schoolhouse]); short term resource procurement sites with Archaic and Woodland components (18AN724, 18AN742); a late 18th to 20th century artifact scatter and kitchen midden (18AN636); a late 18th to mid-19th century artifact scatter (18AN637); and an early 18th to 20th century farmstead (18AN635). Archaeological sites in the area have primarily been found on higher landforms, including hillslopes, hilltops, interior flats, and upland flats.

Table 3.1. Previously Recorded Archaeological Sites within a Mile of the Cabin Branch Site.

Number	Site Type	Temporal Affiliation	Landform	Elevation (ft AMSL)
18AN635	Farmstead	Early 18 th to 20 th Century	Hillslope, Hilltop/Bluff	140
18AN636	Artifact Scatter, Kitchen Midden	Late 18 th to 20 th Century	Hillslope, Hilltop/Bluff	148
18AN637	Artifact Scatter	Late 18 th to Mid-19 th Century	Hillslope, Hilltop/Bluff	158
18AN724	Short-term Resource Procurement, Lithic Scatter	Early Archaic, Late Archaic, Late Woodland	Interior Flat, Hillslope	129
18AN725	Short-term Resource Procurement, Lithic Scatter	Early Archaic, Late Archaic	Interior Flat, Hillslope	99
18AN726	House Site	Late 19 th to 20 th Century	Low Terrace, Hillslope	145
18AN742	Short-term Resource Procurement, Lithic Scatter	Early Archaic, Woodland	Interior Flat, Hillslope	155
18AN743	Short-term Resource Procurement, Lithic Scatter	Early Archaic, Late Woodland	Interior Flat, Hillslope	141
18AN1303	Lithic Scatter	Unidentified Pre-Contact	Upland Flat	180
18AN1547	Lithic Scatter Schoolhouse	Unidentified Pre-Contact Late 19 th to Early 20 th Century	Upland Flat Upland Flat	159 159

Mill Swamp (RFP-6) Stream Mitigation Site

Seven archaeological sites are documented within a mile of the Mill Swamp stream mitigation site, but none is within or in close proximity to the archaeology survey areas (Table 3.2). The archaeological sites within a mile of the stream mitigation site consist of lithic scatters dating to unidentified pre-contact periods (18CH867 and 18CH924); a Woodland period short-term resource procurement site (18CH44); a Late Woodland artifact scatter (18CH923); a late 19th to early 20th century house site (18CH866); and an early to mid-20th century house site (18CH926). No information is provided for 18CH173 on the site form. Also of local significance is site 18CH73, located just over a mile southwest of the stream mitigation site. This large site has produced a very high density of cultural material and cultural features associated with Early Archaic through mid-20th century components and is considered to be a good candidate for the location of a Piscataway village mapped by John Smith in 1608. Archaeological sites in the area have primarily been found on higher elevation terraces with well-drained soils.

Table 3.2. Previously Recorded Archaeological Sites within a Mile of the Mill Swamp Site.

Number	Site Type	Temporal Affiliation	Landform	Elevation (ft AMSL)
18CH44	Short-Term Resource Procurement	Woodland	Low Terrace	30
18CH173	Unidentified	Unidentified	Unidentified	20
18CH866	House Site, Artifact Concentration	Late 19 th to Early 20 th Century	High Terrace	170
18CH867	Lithic Scatter	Unidentified Pre-Contact	High Terrace	172
18CH923	Artifact Scatter	Late Woodland	Low Terrace	32
18CH924	Lithic Scatter	Unidentified Pre-Contact	Low Terrace	29
18CH926	House Site	Early to Mid-20 th Century	Low Terrace	36

Paint Branch (AN-6 and AN-7) Stream Mitigation Sites

Thirty-one archaeological sites are documented within a mile of the Paint Branch stream mitigation site (Table 3.3). Two of these are within the LOD and archaeology survey areas—a short-term resource procurement site dating to an unidentified pre-contact period (18PR113) and a late 19th century artifact concentration (18PR1133). Site 18PR1133 was recently recorded by prior Phase I survey for the MLS project (Arnold et al. 2020). Based on the original site form, however, site 18PR113 was mismapped in the MHT’s online database and is actually located [REDACTED] (partially within the LOD). Site 18PR111, located just outside of the LOD, is also a short-term resource procurement site, possibly dating to the Archaic period. Other sites in close proximity to the LOD and archaeology survey areas include two lithic scatters dating to unidentified pre-contact periods (18PR744 and 18PR750); an early 20th century domestic site (18PR746); a quartz procurement site dating to an unidentified pre-contact period (18PR220); and an early 20th century refuse disposal location (18PR742). Phase II investigations were recently completed at 18PR750, which lies in between the archaeology survey areas for AN-6 and AN-7, for the MLS project. Other nearby sites include lithic scatters (18MO395, 18PR77, 18PR743, and 18PR1170); Archaic period campsites (18PR88 and 18PR1171); a lithic quarry site (18PR745); a Late Archaic short-term camp and lithic quarry site (18PR465); an Early to Middle Woodland short-term resource procurement site (18PR1024); a Paleoindian and Late Archaic short-term resource procurement site (18MO396); a Late Archaic and Early Woodland period base camp (18PR361); short-term resource procurement sites (18PR89, 18PR114, 18PR438, and 18PR645) containing Archaic and Woodland period components; an artifact concentration and farmstead ruin (18PR466); an early 20th century domestic site (18PR436); a mid-18th to late 20th century plantation and farmstead (18PR1171); a late 19th century mill raceway (18PR150); and several other sites with unidentified pre-contact and historic period components (18MO393, 18MO394, 18PR86, 18PR437, and 18PR746).

In general, the data show a moderate to high density of occupation in this area during the pre-contact and historic periods, with locations on all types of landforms, both at lower and higher elevations, selected for use. Of particular relevance to this project is the environmental situation of site 18PR1024, located on Paint Branch to the south of the archaeology survey area. That site contains Early and Middle Woodland occupations deeply buried below Codorus and Hatboro soils, a type that is very prevalent in this archaeology survey area.

Table 3.3. Previously Recorded Archaeological Sites within a Mile of the Paint Branch Sites.

Number	Site Type	Temporal Affiliation	Landform	Elevation (ft AMSL)
18MO393	Lithic Scatter	Unidentified Pre-Contact	Low Terrace	215
	Artifact Concentration	Unidentified Historic	Low Terrace	215
18MO394	Lithic Scatter	Unidentified Pre-Contact	Low Terrace	213
	Artifact Concentration	Late 18 th to Early 19 th Century	Low Terrace	213
18MO395	Lithic Scatter	Unidentified Pre-Contact	Ridgetop	226
18MO396	Short-term Resource Procurement	Paleoindian and Late Archaic	Upland Flat	205
18PR77	Lithic Scatter	Unidentified Pre-Contact	Hillslope	109
18PR86	Short-term Resource Procurement	Late Woodland	Floodplain, Low Terrace	134
	Artifact Concentration	Possibly 19 th Century	Floodplain, Low Terrace	134
18PR87	Unidentified	Unidentified Pre-Contact	Low Terrace	99
18PR88	Lithic Scatter	Archaic	Floodplain, Low Terrace	95
18PR89	Short-term Resource Procurement	Early Archaic, Late Archaic, Middle Woodland	Low Terrace	88

Table 3.3. Previously Recorded Archaeological Sites within a Mile of the Paint Branch Sites.

Number	Site Type	Temporal Affiliation	Landform	Elevation (ft AMSL)
18PR111	Short-term Resource Procurement, Quartzite Workshop	Possibly Archaic	Low Terrace	103
18PR113	Short-term Resource Procurement	Unidentified Pre-Contact	Low Terrace	95
18PR114	Short-term Resource Procurement	Possibly Archaic	Terrace	89
18PR150	Mill Raceway	Late 19 th Century	Floodplain	137
18PR220	Quartz Procurement Site	Unidentified Pre-Contact	Floodplain, Low Terrace	125
18PR361	Base Camp, Lithic Scatter	Late Archaic, Early Woodland	Hillslope	
18PR436	Residence Site	Early 20 th Century	Ridgetop	
18PR437	Lithic Scatter	Unidentified Pre-Contact	Ridgetop	243
	House Foundation	Early to Mid-20 th Century	Ridgetop	243
18PR438	Short-term Camp, Lithic Scatter	Late Archaic, Possibly Woodland	Upland Flat	195
18PR465	Short-term Camp, Lithic Quarry/Extraction Site	Late Archaic	Ridgetop	237
18PR466	Farmstead Ruin, Artifact Concentration	Late 18 th to Early 20 th Century	Ridgetop	282
18PR645	Short-term Resource Procurement	Early to Late Archaic, Late Woodland	Floodplain, Hillslope	125
18PR742	Refuse Disposal	Early 20 th Century	Hilltop/Bluff	250
18PR743	Lithic Scatter	Unidentified Pre-Contact	High Terrace	150
18PR744	Lithic Scatter	Unidentified Pre-Contact	High Terrace	200
18PR745	Lithic Quarry/Extraction Site	Unidentified Pre-Contact	High Terrace	150
18PR746	House Site, Artifact Scatter	Early 20 th Century	Low Terrace	175
	Lithic Scatter	Unidentified Pre-Contact	Low Terrace	175
18PR750	Short-term Resource Procurement, Lithic Quarry/Extraction, Lithic Scatter	Unidentified Pre-Contact	Floodplain	125
18PR1024	Short-term Resource Procurement, Stone Tool Manufacture and Maintenance	Early to Middle Woodland	Floodplain	84
18PR1133	Artifact Concentration	Late 19 th Century	Upland Flat, Highway Berm	115
18PR1170	Lithic Scatter	Unidentified Pre-Contact	Hilltop/Bluff	223
18PR1171	Lithic Scatter Plantation, Farmstead	Late Archaic Mid 18 th to Late 20 th Century	Floodplain, Terrace, Hillslope, Hilltop/Bluff	210

This page intentionally left blank.

4. RESEARCH GOALS AND METHODS

RESEARCH GOALS

The goals of the Phase I survey were to identify and characterize any archaeological resources present within the archaeology survey areas (as determined by MDOT SHA based on project plans available at the time of this survey) and evaluate the NRHP eligibility of identified archaeological resources as far as possible using Phase I methods.

The investigations complied and were consistent with all pertinent federal and state regulations, including, but not limited to, the 1986 Specifications for Consulting Engineers Services Manual, Section IV; Section 106 of the *National Historic Preservation Act* and its implementing regulations (36CFR 800, *Protection of Historic Properties*), as amended; the *National Environmental Policy Act* of 1969; the Advisory Council on Historic Preservation's *Treatment of Archaeological Properties*; the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (1983); the MDOT SHA's 2017 *Archaeology Guidelines for Consultants*; the Maryland Historical Trust's *Standards and Guidelines for Archeological Investigations in Maryland* (Shaffer and Cole 1994) and *Technical Update No. 1 of the Standards and Guidelines for Archeological Investigations in Maryland: Collections and Conservation Standards* (Morehouse et al. 2018); and the Maryland Historical Trust Act of 1985, as amended (State Finance and Procurement Article 5A-325 and 5A-326 of the Annotated Code of Maryland).

RESEARCH METHODS

Background Research

Extensive background research has been conducted for the MLS project (see Arnold et al. 2020), and only site-specific additional research was performed to develop an understanding of the types of resources already documented and potentially undocumented at each location and provide contexts for the interpretation of the archaeological deposits. Background research was conducted in order to gather information regarding previously recorded cultural resources in the vicinity of each survey area. This research included examination of archaeological site files in the MHT's online system as well as cultural resource reports, local and regional histories, historic maps, aerial photographs, and environmental data available online and in TRC's reference library. These data provided the contexts necessary for completing the background sections of the report, as well as provided a basis for predicting, interpreting, and evaluating the resources documented during the survey.

Fieldwork

Shovel Test Excavation. Archaeological fieldwork began with the systematic excavation of shovel tests at 50-ft intervals in areas designated for survey. Any area where shovel testing was not considered warranted, such as in extensive disturbance, in wetland and/or poorly drained soils, or on steep slope, was examined by systematic surface inspection and documented in field notes and photographs. Each shovel test was 1.5 ft in diameter, a straight-sided cylinder (not conical), excavated by strata recorded in tenths of feet, and excavated to Pleistocene soils where feasible or a depth of at least 100 centimeters below surface (cmbs). A representative sample of shovel tests where Pleistocene soils or channel gravels were not reached at 100 cmbs were excavated as deep as feasible within the confines of the shovel test (to at least 120 cm deep). An auger was used to obtain information regarding deeper deposits if Pleistocene soils or channel deposits were not reached in a representative sample of those shovel tests, particularly the shovel tests in areas of Codorus and Hatboro alluvium, which were excavated to the maximum feasible depth of hand excavation where

channel deposits were not encountered above 100 cmbs. The purpose of this deep testing was to identify deeply buried deposits in such settings that may contain pre-contact or early historic period levels.

All excavated soils were screened through ¼ inch wire mesh, and artifacts were collected and bagged separately by stratum, depth, and material. All shovel tests were backfilled on the same day as excavation, following recordation. Soil descriptions followed USDA NRCS terminology, and Munsell colors were recorded for all strata. All shovel test locations were mapped and illustrated on plan maps, and the locations of all shovel tests were recorded using a GPS unit with submeter accuracy. Additional shovel tests were excavated as necessary to define site and/or isolated find boundaries, delineate intra-site activity areas, refine stratigraphic depths, and determine locations for optimal test unit placement (if warranted). Limited shovel testing was conducted outside the project LOD in several areas at the request of the MDOT SHA. At the conclusion of the shovel testing, TRC consulted with the MDOT SHA Archaeological Liaison regarding the proposed placement and number of test units if considered appropriate.

Test Unit Excavation. Subsequent to the shovel testing, 5 × 5 ft test units were excavated to document stratigraphy or explore deep deposits on sites that were considered to be potentially eligible for the NRHP. Test units (TUs) were placed in areas where shovel tests produced artifacts in relatively higher concentrations and/or generated diagnostic or potentially diagnostic artifacts. Test units were excavated in 6-inch levels within cultural strata and recorded in tenths of feet. Excavated soils were screened through ¼ inch wire mesh to ensure uniform artifact recovery. Each test unit was assigned an individual designation, and its location was plotted on the project map. Detailed notes regarding soil texture, Munsell color, artifact recovery, and disturbance were recorded for each stratum. At the conclusion of the excavation, at least two test unit walls were drawn and photographed. After excavation and documentation were completed, each test unit was backfilled, and the area was returned to the pre-excavation condition as far as possible.

Laboratory Analysis

Following completion of each session of fieldwork, artifacts recovered from the investigations were returned to TRC's facility in Chapel Hill for cleaning and analysis. The laboratory processing included the preparation of a detailed inventory of the artifacts to ensure that all of the materials were present and organized and to facilitate subsequent analyses. Artifacts were cleaned, using techniques appropriate to the nature and condition of the materials. After processing, all artifacts were classified and catalogued using standard procedures.

Pre-Contact Lithic Analysis. Lithic artifacts were classified according to accepted regional practices. The primary division of all pre-contact lithic artifacts is into cores and/or tools that generally exhibit primarily negative flake scars and lithic debitage that generally exhibit positive bulbs of percussion. The debitage categories used are based primarily on those outlined by Sullivan and Rozen (1985) and include complete flakes, broken flakes, and shatter. Complete flakes exhibit a positive bulb of percussion on the ventral surface and are intact; broken flakes also exhibit a positive bulb of percussion on the ventral flake surface but have a snapped distal end; and shatter is angular flaking debris lacking a single interior (ventral) surface. A number of other attributes were recorded for each piece of debitage, including raw material, size, and reduction stage based on the presence of cortex (primary, secondary, tertiary). A few of the pieces of debitage exhibit classic characteristics of bipolar reduction technology and these were identified in the assemblages, but given that the predominant material type originated in cobble form, particularly on Paint Branch project sites, it is likely that additional artifacts resulting from this reduction technique exist within the assemblages (especially within the shatter category).

Lithic tools were categorized based on evidence of morphology, function, macroscopically detectable retouch and use-wear, and fracture attributes. Projectile points/knives (PPKs) are generally temporally diagnostic, and an attempt was made to classify these specimens according to regional and local types (cf.

Coe 1964; Dent 1995; Justice 1987). The following attributes were recorded for each: base shape, blade shape, presence of basal grinding, presence of cortex, thermal alteration, and evidence of resharpening or reworking. Metric attributes were also recorded to the nearest 0.1 mm for length, medial width, basal width, and thickness, and weight was measured to the nearest 0.1 gram. Length and width measurements were taken at medial points on the existing artifact, whether the specimen is broken or not.

Raw Material Identification. Raw materials for pre-contact stone artifacts were identified based on macroscopic characteristics.

Pre-Contact Ceramic Artifact Analysis. Pre-contact ceramic artifacts were analyzed by attributes such as temper type and size, sherd size, interior and exterior surface treatments, and adjunct decoration. Particle size categories consist of fine ($\frac{1}{8}$ – $\frac{1}{4}$ mm), medium ($\frac{1}{4}$ – $\frac{1}{2}$ mm), and coarse ($\frac{1}{2}$ –1 mm). Exterior and interior surface treatments, such as cordmarked, fabric impressed, incised, or smoothed, were recorded where visible (not eroded). Ceramics were then assigned to regionally recognized types (e.g., Marcey Creek, Accokeek, Potomac Creek) where possible; in other cases (primarily where surface treatment is not identifiable), sherds were assigned to more descriptive categories (e.g., unclassified sand tempered cordmarked).

Historic Artifact Analysis. All historic artifacts were described and classified according to material type and function, using standardized and well-defined sorting criteria found in such sources as Miller (2000) and Noël Hume (1991). More specific published references for particular artifact types also were consulted for identification and dating information (e.g., Jefferson Patterson Museum 2015, SHA 2020). When possible, historic artifacts also were analyzed to determine their manufacturing date range and location of manufacture.

Historic ceramic artifacts were classified according to recognized types (e.g., pearlware, whiteware, porcelain), by decorative technique (e.g., handpainted, transfer print, decal), and by vessel form (e.g., plate, hollowware) according to standard historical archaeological practice. Glass artifacts have been described by type, color, size, and closure type according to published and web-based methods (e.g., SHA 2020). Every effort was made to describe artifacts as precisely as possible, including the identification of specific varieties (e.g., soda bottle, medicine bottle, bowl, button, etc.), manufacturers (e.g., Knox Glass Bottle Company, Hall China Company), or brands (e.g., Pepsi-Cola, Ball Perfect Mason).

All artifacts were grouped according to the artifact pattern model originally devised by South (1977) and revised by Garrow (1982). South's system was developed as a way of quantifying diversity in certain British Colonial-era assemblages and has inferential value in differentiating historic site types based on artifact group composition of assemblages. Since the publication of South's book in 1977, researchers have found that many archaeological sites do not fit the artifact patterns proposed by South and have added to and modified his original functional classification system (see Garrow 1982; Wheaton and Garrow 1985). Nevertheless, the widespread adoption and use of South's functional categories (and subsequent modifications and variants) has remained an effective way to organize archaeological data and discuss past lifeways and has been used for this study.

Curation

The curation procedures follow the methods used in previous work for the MDOT SHA. Artifacts were washed, sorted, labeled, bagged, and boxed in accordance with 36 CFR 79 and the standards of the MHT. All project records, including but not limited to field notes, photographs, field maps, and records will be curated in accordance with 36 CFR 79 at the Maryland Archaeological Conservation Laboratory (MAC Lab). After the final report is accepted, all project materials for which a clear deed of gift can be obtained will be submitted to the MAC Lab for permanent curation.

NATIONAL REGISTER ELIGIBILITY ASSESSMENT

The significance of each archaeological resource is evaluated according to the National Register *Eligibility Criteria*, as outlined in 36 CFR 60.4 (USDOJ 1991). The *Eligibility Criteria* state:

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- A. That are associated with events that have made a significant contribution to the broad pattern of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic value, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield information important to history or prehistory.

The regulations also include several criteria considerations (USDOJ 1991), but those are generally not relevant to archaeological sites. The potential eligibility of each site was evaluated in light of all four eligibility criteria. Most archaeological sites that are deemed eligible for the National Register are recommended due to their research potential, under Criterion D. In order to assess a site's eligibility under this criterion, researchers must consider how each site could provide data relevant to pertinent regional research questions. Several factors are considered in assessing site significance and research potential; as enumerated by Glassow (1977); these include

- the variety of remains, or clusters of remains, encountered in a specific resource;
- the quantity of remains;
- the clarity of archaeological deposits;
- the "integrity" (state of preservation or completeness of an assemblage) of archaeological deposits; and
- the environmental context of a particular locale.

Artifact variety is a quantification of the number of different artifact categories represented on a site. Artifact variety and quantity are related to a number of factors of site occupation, including site function, occupation duration, number of components, and group size, but also relate to the potential to draw meaningful data from an assemblage. There is not a direct relationship between artifact quantity and data potential, however, especially in cases where the artifacts derive from a restricted number of artifact classes and cannot be associated with specific occupational components.

The integrity of an archaeological site is determined by the degree to which the stratigraphy appears to be intact and whether or not a site contains intact cultural features, while site clarity relates to the ability with which artifacts and data from specific components can be isolated and analyzed. Although the concepts are related, the two are not always linked. It is possible for a site with good integrity to lack clarity, in that the discrete cultural features are lacking and the degree of component overlap makes it impossible to sort out materials from individual deposits. Conversely, a small single component site could potentially have excellent clarity, while lacking features or stratigraphic integrity. The nature of deposits (intact, partially disturbed, obliterated, etc.) has direct bearing on the potential to view a site within the context of its past, and on the degree to which it can provide data based on the material record. In short, the integrity of a site (and thereby its potential NRHP eligibility) is directly tied to its capacity to address research questions.

The environmental context of a site involves the surrounding natural factors that affect post depositional changes to the archaeological remains. For example, sites can be buried intact by eolian and flood deposits or scoured by flood waters and erosion.

All of these factors must be considered when evaluating the research potential of an archaeological site—that is, its ability to provide “information important to history or prehistory.” Further consideration should also be given to whether a site will not only provide redundant information, but potentially contains new or additional supportive data useful for addressing current regional research questions.

This page intentionally left blank.

5. RESULTS OF CABIN BRANCH (RFP-4) SITE PHASE I SURVEY

This chapter presents the results of the Phase I archaeological survey conducted along the headwaters of the Cabin Branch and Wilson Owens Branch drainages, tributaries of the Patuxent River located in Anne Arundel County near the community of Greenock, Maryland. Wilson Owens Branch (WOB) is located on the north side of Greenock Road, and Cabin Branch (CB) is located to the south of Greenock Road (Figures 5.1 and 5.2). To organize the discussion, the results of investigation of the archaeology survey areas are presented in sections divided by the two streams, and then each stream is divided roughly in half based on the property owners. Wilson Owens Branch is divided into the Greenock Hills Stables area to the east and the Cannon Golf Club area to the west; Cabin Branch is divided into the Lare Property area to the north and the Greenock Hills Stables area to the south.

Background research indicated that there is one previously recorded site

(18AN725) and two previously recorded sites (18AN726 and 18AN743)

. All of these sites are located to the

They were identified in June 1989 by John E. Harms Jr. & Associates, Inc. as part of the Old South Colony Country Club project. Site 18AN725 is described as an Early and Late Archaic short-term resource procurement camp, site 18AN726 is described as a late 19th–20th century house site that has been bulldozed, and site 18AN743 is described as an Early Archaic and Late Woodland short-term resource procurement camp. All of the sites are represented by artifacts recovered from the ground surface within recently plowed areas; none of the shovel tests excavated on these sites contained artifacts (Gaber and Mackie 1989).

A review of 19th and 20th century maps showed no structures depicted within the archaeology survey areas (Hopkins 1878; USGS 1895, 1899, 1905, 1944). There are structures depicted near the farm roads that are proposed as temporary access roads for the project (USGS 1905, 1944, 1957), but the locations of these structures are unreliable when compared to modern mapping. Aerial photographs from 1953, 1957, 1964, and 1970 show no structures within the archaeology survey areas (historicaerials.com 2020).

WILSON OWENS BRANCH GREENOCK HILLS STABLES SECTION

The archaeology survey area along Wilson Owens Branch and within the Greenock Hills Stables property is an irregular shaped area measuring between 100 and 400 ft wide that follows the stream for approximately 1,600 ft (Figure 5.1). At its eastern end, the archaeology survey area extends northward for approximately 900 ft following an unnamed ephemeral tributary of Wilson Owens Branch. Most of this area is in hardwood forest with a light to moderately dense understory, but the southern end of the archaeology survey area is within pasture and an agricultural field (Figures 5.3–5.7). A 16-ft-wide gravel farm road extends from the archaeology survey area for approximately 1,150 ft south to end at Greenock Road and will be used as a temporary access road for the project. The areas immediately surrounding Wilson Owens Branch are low and wet with some standing water, but farther from the stream there are several terraces within the archaeology survey area that are situated on well-drained soils. The portion of the archaeology survey area surrounding the ephemeral tributary also contained well-drained soils. According to the USDA NRCS (2020), the wetland areas are underlain by Widewater and Issue soils (0–2% slopes), which are frequently flooded, and the well-drained areas are situated on Marr-Dodon complex soils (5–15% slopes). The typical soil profile observed in shovel tests in this area involved an Ap/Bt1/Bt2 horizon sequence, with the Bt1 horizon varying in thickness. A total of 177 shovel tests were excavated within this section of the RFP-4 Cabin Branch stream mitigation site, 26 of which contained artifacts associated with four newly identified resources (18AN1696, 18ANX520-1, 18ANX520-2, and 18ANX520-3), representing one historic artifact scatter, two isolated artifacts, and one redeposited artifact scatter. Shovel tests were not excavated along the existing gravel road, in areas of standing water, or in areas of greater than 15 percent slope.

This page intentionally left blank.

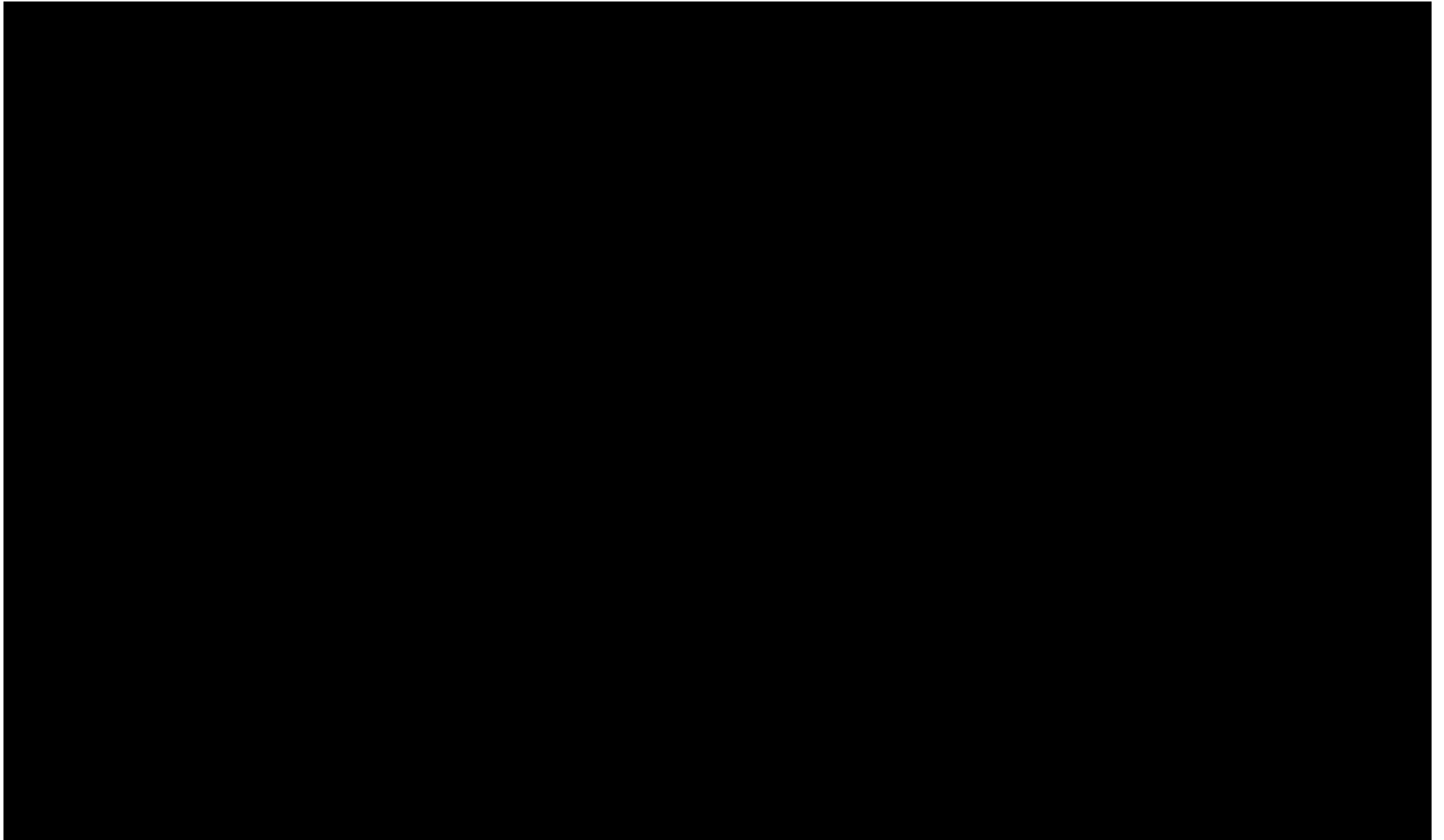


Figure 5.1. Northern Portion of Cabin Branch Archaeology Survey Areas, Shovel Tests, and Resources.

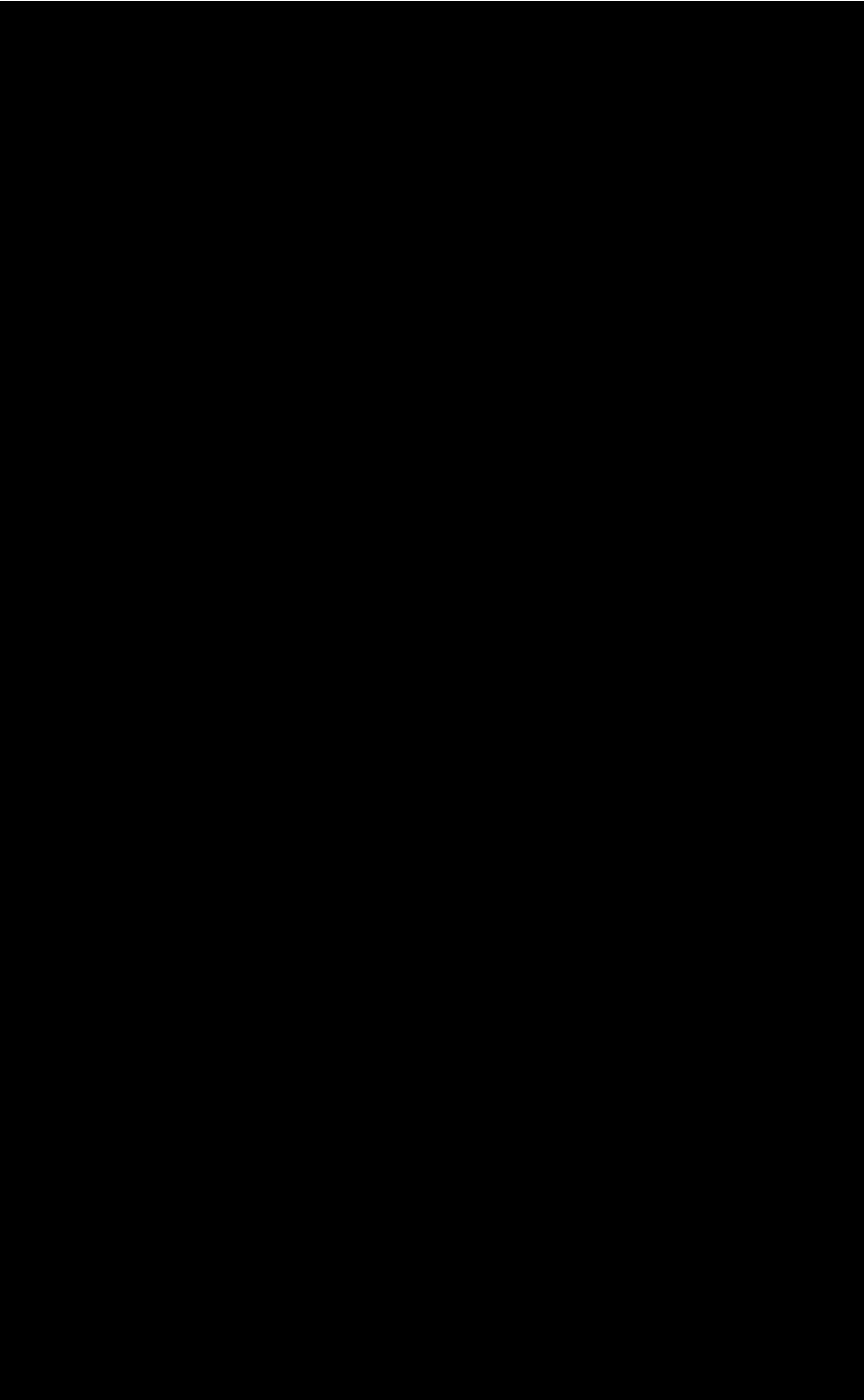




Figure 5.3. View of Wet Area along WOB within the Greenock Hills Stables Section, Facing West.



Figure 5.4. View of Pasture in WOB Greenock Hills Stables Section, Facing Southwest.



Figure 5.5. View of Agricultural Field in WOB Greenock Hills Stables Section, Facing East.



Figure 5.6. View of Unnamed Tributary within WOB Greenock Hill Stables Section, Facing South.



Figure 5.7. View of Farm Road within WOB Greenock Hill Stables Section, Facing South.

18ANX520-1

Resource 18ANX520-1 is identified by a quartz tertiary flake recovered from the Ap horizon of shovel test 7.1, which was located [REDACTED] (see Figure 5.1; Figure 5.8). The area to the [REDACTED]. Six delineation shovel tests were excavated at 25-ft intervals around shovel test 7.1, none of which produced artifacts; delineation shovel tests were not excavated to the northwest of the find outside the archaeology survey area, which is the same as the LOD boundary in that area (Figure 5.10). Shovel test 7.1 contained an Ap horizon (0–0.7 ft below surface [fbs]) of dark brown (10YR 3/3) sandy loam underlain by a Bt1 horizon (0.7–1.7 fbs) of brownish yellow (10YR 6/6) sandy clay loam underlain by a Bt2 horizon (1.7–2.5 fbs) of brownish yellow (10YR 6/6) sandy clay (Figure 5.9). Soils in most of the delineation shovel tests were eroded and displayed an Ap horizon over a Bt horizon that was often wet but similar in color and texture to the Ap and Bt2 horizons described above.

Resource 18ANX520-1 is an isolated artifact associated with an ephemeral pre-contact period use of this area. The artifact was recovered from the plowzone, and given the slope in this area (10–15%), it is possible that it eroded down from the higher elevation landform located to the northwest. Based on the isolated nature of the artifact and its recovery from the Ap horizon, the artifact does not have the ability to provide information important in history. No further archaeological investigation of this area is recommended for the project as scoped.



Figure 5.8. View of Resource 18ANX520-1, Facing North.



Figure 5.9. View of Representative Shovel Test Profile at Resource 18ANX520-1.

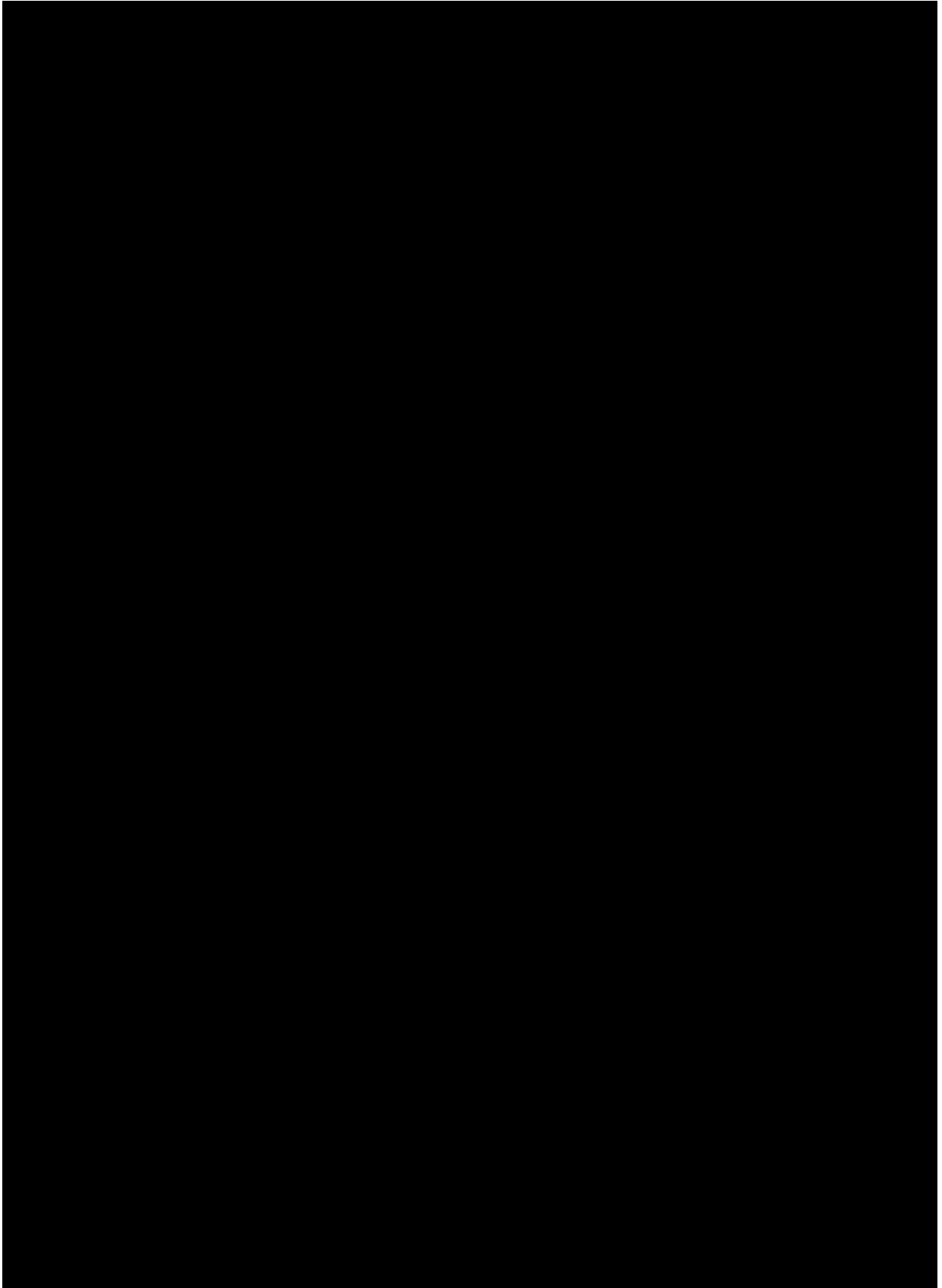


Figure 5.10. Map of Resource 18ANX520-1.

18ANX520-2

Resource 18ANX520-2 is represented by a primary rhyolite flake recovered from the Ap horizon of shovel test 7.15, which was located on a hillslope [REDACTED] (see Figure 5.1; Figure 5.11, Figure 5.12). The find was located next to a small agricultural field to the west that was planted in corn at the time of the survey. Six delineation shovel tests were excavated at 25-ft intervals around shovel test 7.15, none of which produced artifacts (Figure 5.12). Shovel test 7.15 displayed a typical soil sequence for the area, with an Ap horizon (0–1.6 fbs) of brown (10YR 4/3) sandy loam on top of a Bt horizon (1.6–3 fbs) of light yellowish brown (2.5Y 6/4) sandy clay loam underlain by a Btg horizon (3–3.6 fbs) of reddish yellow (7.5YR 6/8) sandy clay (Figure 5.13).

Resource 18ANX520-2 is represented by a single piece of rhyolite debitage dating to an unidentified pre-contact period. The artifact was recovered from the Ap horizon and may have been redeposited in this location by erosion from a site located on the higher elevation landform to the west, outside the survey area and outside the LOD. Resource 18ANX520-2 represents ephemeral use of this area. Based on the isolated nature of the artifact and its recovery from the Ap horizon, the artifact does not represent a substantial archaeological resource, and additional investigation is unlikely to provide information important in history. No further archaeological investigation of resource 18ANX520-2 is recommended.



Figure 5.11. View of Resource 18ANX520-2, Facing South.

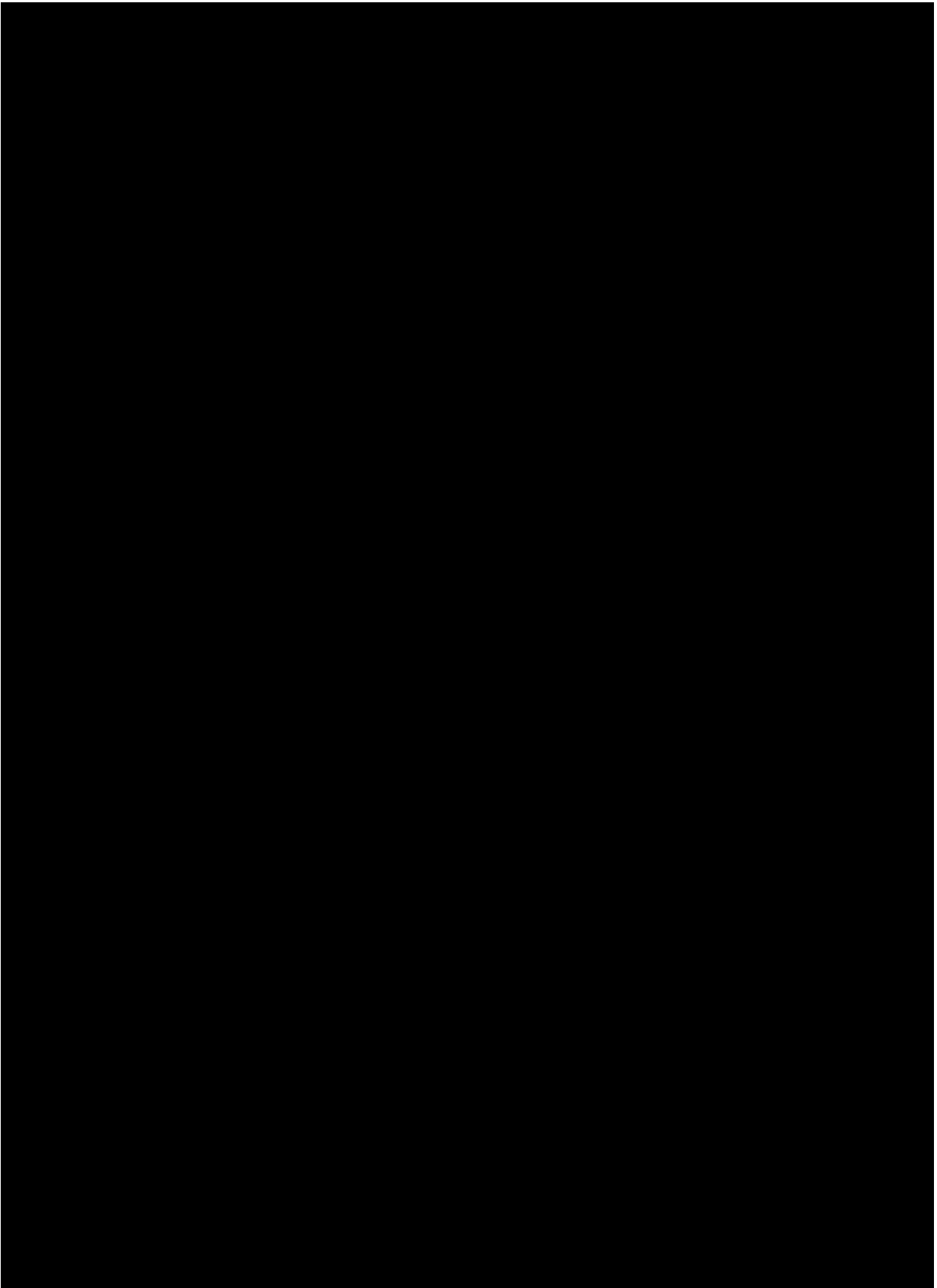


Figure 5.12. Map of Resources 18ANX520-2 and 18ANX520-3.



Figure 5.13. View of Representative Shovel Test Profile at Resource 18ANX520-2.

18ANX520-3

Resource 18ANX520-3 is located [REDACTED]

[REDACTED] (see Figure 5.1; Figure 5.14). The soil within the resource area is mapped as Marr-Dodon complex (5–15% slopes), which consists of well-drained soils that are found on knolls, interfluves, and stream terraces formed on fluvio-marine deposits (USDA NRCS 2020). The resource was initially identified by a berm largely comprised of brick and roofing slate surrounded by a surface scatter of historic artifacts (Figure 5.15). A total of 15 of 43 shovel tests excavated within the site boundary produced a total of 35 historic period artifacts. The dimensions of the resource as currently identified are 250 ft north-south by 175 ft east-west, but the debris likely extends outside the survey area to the east. The resource is bounded by negative shovel tests to the south, west, and north; [REDACTED] t.

Two typical stratigraphic sequences were observed in the shovel tests in this area. Shovel test 11.2 displayed the soil sequence most frequently encountered in the area immediately surrounding the brick pile, which consisted of an Ap horizon (0–0.4 fbs) of very dark grayish brown (10YR 3/2) sandy loam overlying an E horizon (0.4–0.9 fbs) of brownish yellow (10YR 6/6) sandy clay loam underlain by a Bt horizon (0.9–1.3 fbs) of reddish yellow (5YR 6/8) sandy clay (Figure 5.16). Shovel tests closest to the ephemeral drainage and farther from the brick pile contained a soil sequence similar to that seen in shovel test N375 E475, which was an Ap horizon (0–0.5 fbs) of brown (10YR 4/3) sandy loam underlain by a Bt1 horizon (0.5–2.4 fbs) of yellowish brown (10YR 5/4) fine sandy loam underlain by a Bt2 horizon (2.4–3.1 fbs) of brownish yellow (10YR 6/6) sandy clay loam. The latter sequence is consistent with Marr-Dodon complex soils, and the former is likely the result of disturbance and erosion (USDA NRCS 2020).



Figure 5.14. View of Resource 18ANX520-3, Facing East.



Figure 5.15. View of Brick and Roofing Slate Pile at Resource 18ANX520-3, Facing Northeast.



Figure 5.16. View of Representative Shovel Test Profile at Resource 18ANX520-3.

Forty-three shovel tests were excavated across this area within the project LOD at 25- and 50-ft intervals, and 15 of these contained artifacts; no shovel tests were excavated outside the project LOD in this area as it was clear that these materials were not associated with intact archaeological deposits—see below (see Figure 5.10). A total of 35 historic period artifacts were recovered, with individual shovel tests producing only one to three artifacts each; only a sample of brick and roofing slate fragments was collected. Artifacts were recovered from the Ap horizon ($n=28$) and the Bt1 horizon ($n=3$), and a representative sample of temporally diagnostic artifacts was collected from the ground surface ($n=4$). Considering the sandy soils at this site, the artifacts within the Bt1 horizon are likely the result of downward movement from bioturbation.

The 35 artifacts from 18ANX520-3 include one brick fragment, three aqua window glass fragments, one slate roofing shingle fragment, one cut nail, one creamware sherd, three salt glazed stoneware sherds, one Rockingham type stoneware sherd, six pearlware sherds, four whiteware sherds, five glass bottle fragments, six glass container fragments, one glassware fragment, and two unclassified metal objects (Figures 5.17 and 5.18; Table 5.1). The artifacts date from the early 19th through mid-20th centuries.

A structure attributed to G.W. Welch is depicted near this location on the 1878 Hopkins atlas map. A structure shown in a similar location appears on the 1905 Bristol, MD USGS map and continues to be depicted in that location until 1942 (USGS 1905, 1942). A structure is then shown approximately 350 ft east of the brick pile (outside the project LOD) on the 1944 Bristol, MD USGS map and is shown at that location through 1979 (USGS 1944, 1957, 1979). Aerial photography from 1953 through 1970 shows a structure at that same location (historicaerials.com 2020). The structure visible on the 1953–1970 aerial photography is no longer visible on images from 1980, and a new structure appears approximately 200 ft to the southeast at that date. During the survey, communication with the current landowner confirmed that the brick pile and associated artifact scatter are the result of the demolition of a 19th century dwelling, which was the structure visible on the 1953–1970 aerial photography, and the debris from that dwelling was deposited in the nearby forested area at the location of 18ANX520-3. Although the artifacts found in the survey area are likely associated with a site located outside the project LOD, these materials were

redeposited from the original location and the artifacts recovered during the survey are not from an *in situ* context. Based on the lack of *in situ* deposits, the low artifact density, the recovery of the bulk of the assemblage from the plowzone, and the lack of cultural features in this area, the resource was assigned an X/isolated find designation rather than an archaeological site number.

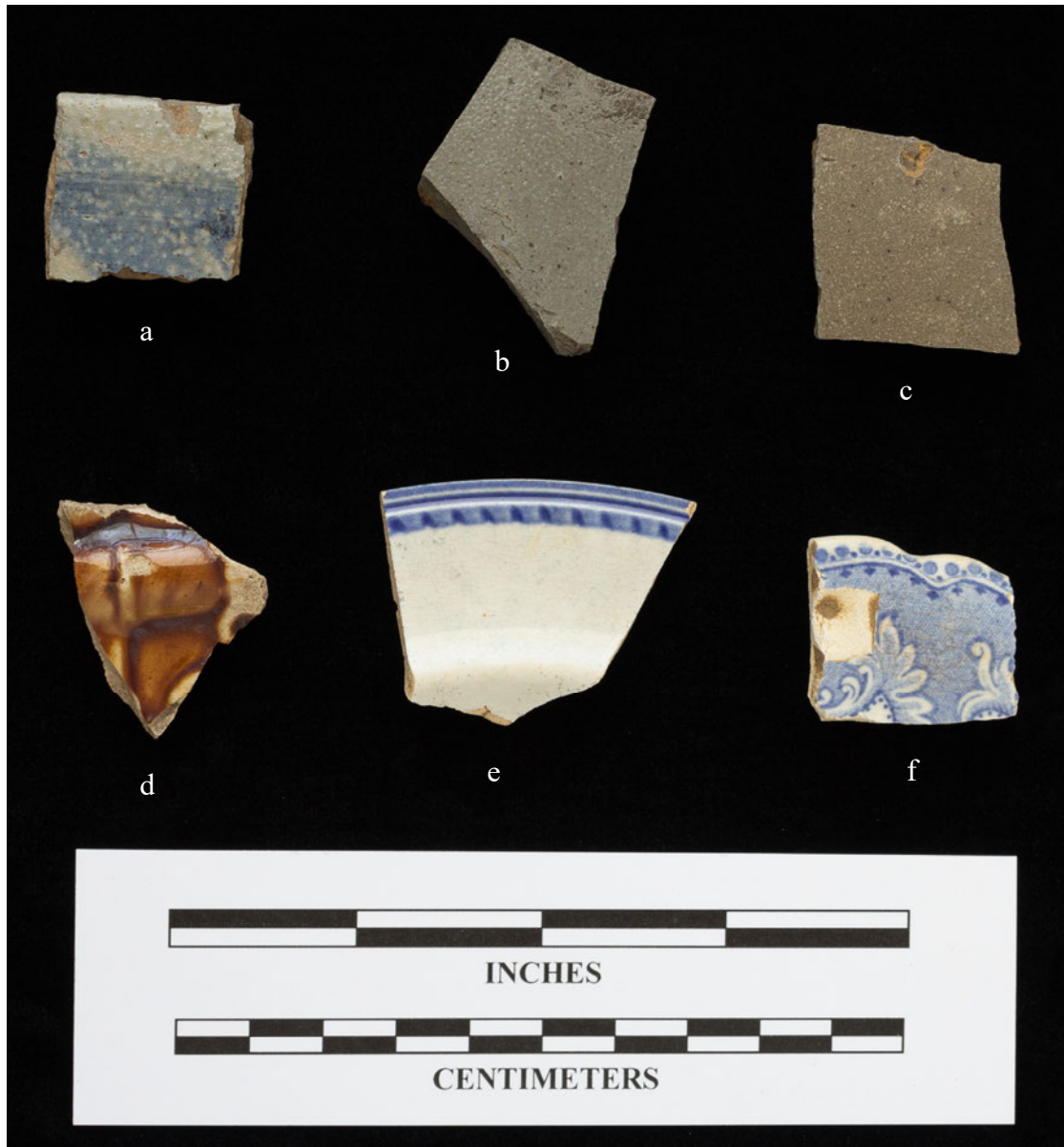


Figure 5.17. Representative Ceramic Artifacts from Resource 18ANX520-3. a) gray salt glazed stoneware rim with hand brushed cobalt decoration; b, c) undecorated gray salt glazed stoneware; d) molded Rockingham type earthenware; e) blue shell edge pearlware rim; f) medium blue transfer print pearlware rim



Figure 5.18. Representative Artifacts from Resource 18ANX520-3. a) enameled red glassware; b) colorless panel bottle base; c) slate roofing shingle; d) aqua hobble skirt bottle base

Resource 18ANX520-3 is the location of redeposited materials associated with a 19th and 20th century domestic occupation that were dumped in this area when the associated dwelling was demolished sometime in the 1970s. The original location of this dwelling and the area immediately surrounding it (both located outside the project LOD) may contain cultural deposits that would provide information about historic occupation in this area, but the redeposited materials located within the project LOD do not represent an intact substantial or significant archaeological resource, and 18ANX520-3 does not have the ability to yield further information regarding historic period occupation of this area. No additional archaeological investigation is recommended for 18ANX520-3 for this project as scoped.

Table 5.1. Artifacts from Resource 18ANX520-3.

Functional Group	Artifact Type	Horizon		
		Ap	Bt	Total
Architectural	Brick, Fragment	1		1
	Nail, Cut	1		1
	Slate Roofing Shingle, Fragment	1		1
	Window Glass	3		3
Kitchen	Creamware, Factory Slipped	1		1
	Gray Salt Glazed Stoneware, Blue Hand Brushed	1		1
	Gray Salt Glazed Stoneware, Undecorated	1	1	2
	Pearlware, Blue Shell Edge	1		1
	Pearlware, Blue Transfer Print	2		2
	Pearlware, Undecorated	2	1	3
	Rockingham Type Stoneware, Molded	1		1
	Whiteware, Factory Slipped	1		1
	Whiteware, Undecorated	3		3
	Glass Container, Bottle, Fragment	3		3
	Glass Container, Panel Bottle, Fragment	1		1
	Glass Container, Unclassified, Fragment	5	1	6
	Glass Hobble Skirt Bottle, Fragment	1		1
	Glassware, Enameled, Fragment	1		1
Miscellaneous	Unclassified Metal Object	2		2
Total		32	3	35

18AN1696

Site 18AN1696 is a low-density scatter of historic period artifacts located [REDACTED] (see Figure 5.1). The site is within an agricultural field that was fallow at the time of survey and is situated [REDACTED] (Figure 5.19). The soil series mapped in this area is the Marr-Dodon complex (10–15% slopes), which is found on knolls and interfluvies (USDA NRCS 2020). The dimensions of the resource as currently defined are 150 ft north-south by 150 ft east-west, but the site extends outside the project LOD to the south based on limited shovel testing conducted outside the project LOD in that direction, with the landowner's permission. The resource is bounded within the LOD by negative shovel tests to the east, north, and west (Figure 5.20).

Shovel tests in this area encountered two typical stratigraphic sequences depending on their proximity to the ephemeral drainage. Shovel tests within the ephemeral drainage contained an Ap horizon (0–0.4 fbs) of dark yellowish brown (10YR 4/4) sandy loam overlying a Bt horizon (0.4–1.0 fbs) of yellowish brown (10YR 5/4) sandy clay loam underlain by an Ab horizon (1.0–2.4 fbs) of yellowish brown (10YR 5/6) sandy loam underlain by a 2Bt horizon (2.4–3.4 fbs) of brownish yellow (10YR 6/8) mottled with light gray (10YR 7/2) loamy sand (Figure 5.21). Auger testing showed that the 2Bt horizon continued to a depth of 5.0 fbs and was underlain by a 2BCg horizon (5.0–5.8 fbs) of yellowish brown (10YR 5/4) loam and a 2Cg horizon (5.8–9.0+ fbs) of brownish yellow (10YR 6/8) sandy clay mottled with light gray (10YR 7/2) clay. The Ab horizon is very mottled and likely represents an older plowzone. Shovel tests outside of the ephemeral drainage displayed a sequence that involved an Ap horizon (0–0.6 fbs) of dark yellowish brown (10YR 4/4) sandy clay loam underlain by a Bt horizon (0.6–1.1 fbs) of brownish yellow (10YR 6/8) sandy clay overlying a hydric Cg horizon (1.1–1.6+ fbs) of light gray (2.5Y 7/1) mottled with pale yellow (5Y 8/2) clay (Figure 5.22). These soils appear consistent with a mix of the Marr-Dodon complex soils with the Widewater and Issue soils that are frequently flooded and mapped about [REDACTED] the area surrounding Wilson Owens Branch (USGS NRCS 2020).



Figure 5.19. View of Site 18AN1696, Facing East.

Twenty-nine shovel tests were excavated across this area at 25- and 50-ft intervals, and nine of these contained artifacts (Figure 5.20). Shovel test 5.9 (N550 E500) produced 22 historic artifacts, but the remaining shovel tests that contained artifacts only produced between one and five each. Nineteen of the 22 artifacts from shovel test 5.9 are glass canning jar fragments, all likely from the same jar. A total of 43 historic period artifacts were recovered from the Ap ($n=27$) and Ab ($n=16$) horizons (Table 5.2). These are mostly kitchen group ($n=35$) items, with activities ($n=2$), architectural ($n=4$), and miscellaneous ($n=2$) group items also represented. The artifacts include one brown salt glazed stoneware, one gray salt glazed stoneware, one creamware, one ironstone, two pearlware, two whiteware, and two yellowware sherds; two glass bottle, 19 glass canning jar, and three glass container fragments; part of an aluminum Miller Lite can, two terracotta flowerpot sherds, two brick fragments, one laminated “safety” glass fragment, one window glass fragment, one aerosol can fragment, and one unclassified plastic object (Figure 5.23). All of the ceramic sherds are undecorated, and all but one of the ceramic artifacts were found in the Ab horizon. The Ab horizon also produced the unclassified plastic object, and the only ceramic found in the upper A horizon is potentially the earliest artifact found on the site—the creamware sherd. The artifacts are associated with a wide range of potential manufacture dates between the late 18th through late 20th centuries.

No structure is shown within the site boundary on late 19th through late 20th century maps, but

. The artifacts found on the site are likely associated with the structures located outside the project LOD, but the artifact assemblage appears to be the result of intermittent discard over a long period of time combined with the effects of erosional forces.

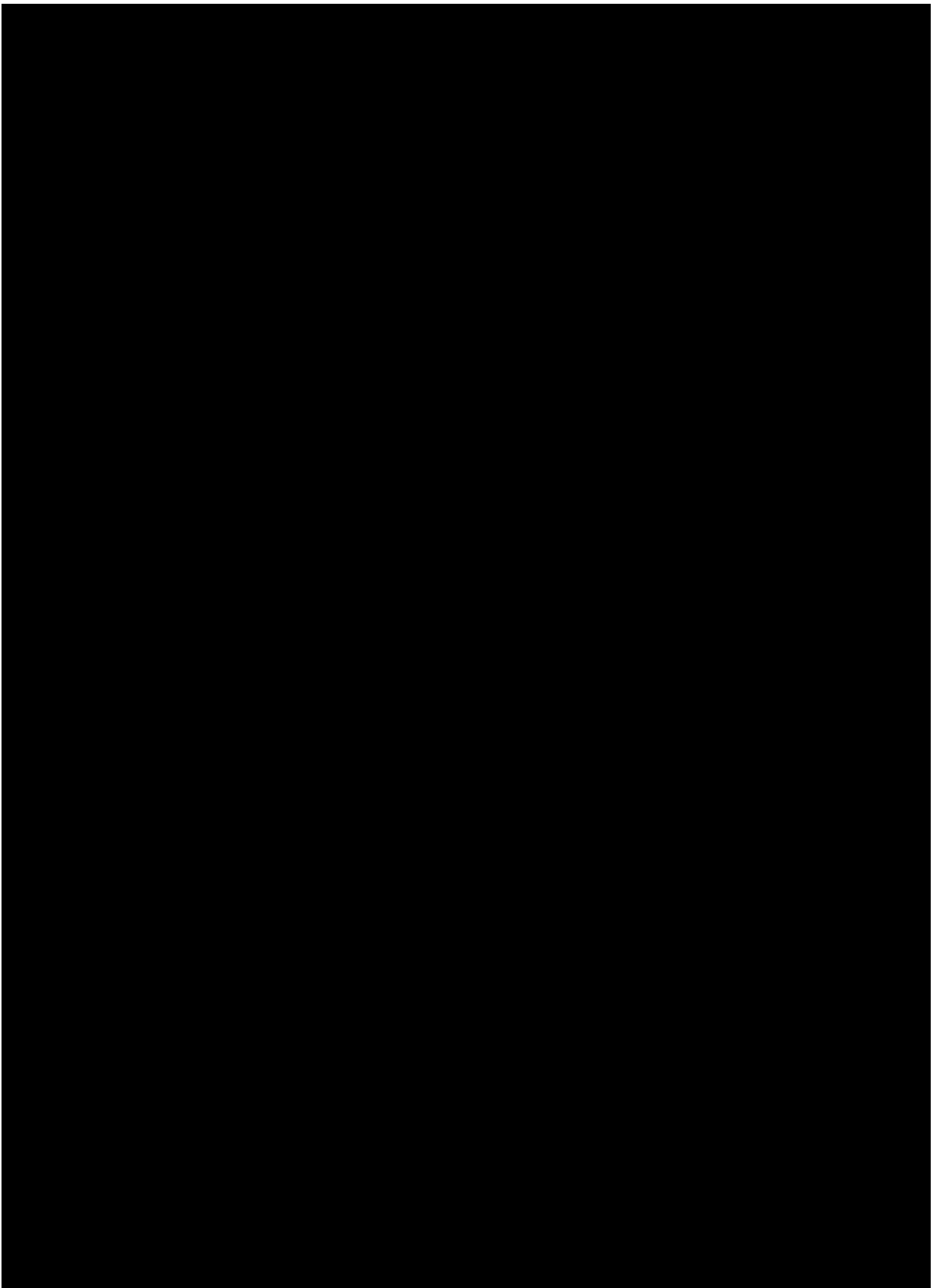


Figure 5.20. Map of Site 18AN1696.



Figure 5.21. View of Shovel Test 4.9 (N500 E500) Profile at Site 18AN1696.



Figure 5.22. View of Shovel Test N525 E475 Profile at Site 18AN1696.

Table 5.2. Artifacts from Site 18AN1696.

Functional Group	Artifact Type	Horizon		Total
		Ap	Ab	
Activities	Terra Cotta, Flowerpot Fragment	2		2
Architectural	Brick Fragment	1	1	2
	Laminated “Safety” Glass		1	1
	Window Glass		1	1
Kitchen	Brown Salt Glazed Stoneware, Undecorated		1	1
	Creamware, Undecorated	1		1
	Gray Salt Glazed Stoneware, Undecorated		1	1
	Ironstone, Undecorated		1	1
	Pearlware, Undecorated		2	2
	Whiteware, Undecorated		2	2
	Yellowware, Undecorated		2	2
	Glass Container, Bottle, Fragment	1	1	2
	Glass Container, Canning Jar, Fragment	19		19
	Glass Container, Unclassified, Fragment	1	2	3
	Aluminum Miller Lite Pull Tab Can	1		1
Miscellaneous	Aerosol Can, Fragment	1		1
	Unclassified Plastic Object, Fragment		1	1
Total		27	16	43

Site 18AN1696 is represented by a small collection of 19th through 20th century artifacts found within the upper and lower A horizons, primarily within a gully/eroded area. The site extends outside the project LOD (the same as the archaeology survey area in this area) to the south, and the artifacts found within the LOD are likely associated with the historic occupation located well outside the LOD. Although artifacts were found in an apparent buried A horizon, this likely represents an older plowzone and there is no indication of vertical sorting by time period. No evidence of cultural features or intact substantial or patterned artifact deposits was observed within the project LOD. The house, the barn, and the area immediately surrounding them (all located outside the project LOD) may contain cultural deposits that would provide information about historic occupation in this area, but the portion of the site located within the project LOD does not represent an intact substantial or significant archaeological resource, and site 18AN1696 as represented within the project LOD does not have the ability to yield further information regarding historic period occupation of this area. No additional archaeological investigation is recommended for site 18AN1696 in association with this project as currently scoped.



Figure 5.23. Historic Artifacts from Site 18AN1696. a) undecorated gray salt glazed stoneware body sherd; b) undecorated yellowware rim; c) undecorated whiteware rim; d) glass machine made canning jar base; e) glass machine made canning jar continuous thread rim

WILSON OWENS BRANCH CANNON GOLF CLUB SECTION

At the western end of Wilson Owens Branch, the survey area within the Cannon Golf Club property is an irregular shaped area measuring between 100 and 350 ft wide that follows the stream for approximately 3,400 ft (see Figure 5.1). Most of this area is in a hardwood forest with light to moderately dense understory, but portions of the survey area cross over fairways on the Cannon Golf Club Course (Figures 5.24–5.26). The areas surrounding Wilson Owens Branch are low and wet with some standing water, but farther from the stream, the edges of several terraces with well-drained soils extend into the project LOD. According to the USDA NRCS (2020), the wetland areas are underlain by Widewater and Issue soils (0–2% slopes) and the well-drained areas are situated on Marr-Dodon complex soils (5–25% slopes). Shovel tests were excavated in areas with well-drained soils that are not on greater than 15 percent slope. The typical soil profile observed in shovel tests involved an Ap/Bt/Btg soil horizon sequence, with the Bt horizon varying in thickness; lower elevation areas displayed an Ap/Btg soil horizon sequence. In total, 24 shovel tests were excavated along eight transects, including the portion of the survey area adjacent to previously recorded site 18AN725, but none of these contained artifacts.



Figure 5.24. View of WOB within the Cannon Golf Club Section, Facing Southeast.



Figure 5.25. View of Wet Area at Base of Terrace in WOB Cannon Golf Club Section, Facing Northwest.



Figure 5.26. View of Golf Course in WOB Cannon Golf Club Section, Facing Northwest.

CABIN BRANCH LARE SECTION

The survey area along Cabin Branch and within the Lare property is an irregular shaped area measuring between 75 and 200 ft wide that follows the stream for approximately 1,900 ft (see Figure 5.2). Near the northern end, the survey area extends northwest for approximately 400 ft following an unnamed tributary of Cabin Branch. Most of the survey area is within a hardwood forest with moderately dense to very dense understory, but portions extend into agricultural fields and a residential lawn (Figures 5.27–5.28). A 14-ft-wide farm road (that would be used as a temporary access road for the proposed stream mitigation project) extends from the survey area following a grassy farm road for approximately 815 ft north to end at Greenock Road; adjacent to the farm road to the east are a corn crib and a barn (Figures 5.29–5.30). The areas immediately surrounding Cabin Branch contain poorly drained soils, but there are areas with well-drained soils along the edges of the survey area, particularly in the north half of the Lare property section. The portion of the survey area surrounding the unnamed tributary also contains well-drained soils. According to the USDA NRCS (2020), the wetland areas are situated on Widewater and Issue soils (0–2% slopes), which are frequently flooded, and the well-drained areas are underlain by Marr-Dodon complex (5–25% slopes) soils; the farm road is on Marr-Dodon complex (2–10% slopes) soils as well. A soil horizon sequence of Ap/Bt/Btg, with the Bt varying in depth, was the most commonly observed in shovel tests in this area. Likely due to plowing and erosion, an Ap/Bt soil horizon sequence with a Bt horizon of brownish yellow (10YR 6/8) dense sandy clay was typical within the lawn and agricultural areas. The shovel tests on Transect 28, which ran south/southwest along the eastern boundary of the LOD in the south half of this area, did not reach the Btg horizon, and an auger was used in three of the shovel tests to examine the deeply buried soils in that area. The auger tests encountered a series of sandy Btg and Cg horizons to depths of 7.5–10.5 fbs. A total of 76 shovel tests were excavated within this section of the RFP-4 Cabin Branch stream project LOD, and one of the shovel tests located along the farm road produced a single artifact that was designated isolated find 18ANX520-4.



Figure 5.27. View of Survey Area in Northern Portion of the CB Lare Section, Facing East.



Figure 5.28. View of Survey Area in Southern Portion of the CB Lare Section, Facing South.



Figure 5.29. View of Farm Road in CB Lare Section, Facing South.



Figure 5.30. View of Corn Crib and Barn in CB Lare Section, Facing Northeast.

18ANX520-4

A single tertiary rhyolite flake was recovered from the Ap horizon of shovel test 31.12, located [REDACTED]

[REDACTED] (see Figure 5.2; Figures 5.31 and 5.32). Two delineation shovel tests were excavated 25 ft to the north and south of shovel test 31.12, neither of which produced artifacts, and the isolated flake was designated 18ANX520-4. Delineation shovel tests were not excavated outside the project LOD to the east or west of the isolated find. Shovel tests displayed an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) sandy loam underlain by a Bt horizon (0.9–1.4 fbs) of brownish yellow (10YR 6/8) sandy clay (Figure 5.33).

Resource 18ANX520-4 is represented by a single piece of rhyolite debitage recovered from the Ap horizon. Although the artifact find location was not fully delineated, based on the apparent isolated nature of the artifact and its recovery from the Ap horizon, it appears to be associated with an unidentified pre-contact period ephemeral use of this area but does not represent a substantial archaeological resource and no further archaeological investigation of this resource is recommended for this project as scoped.

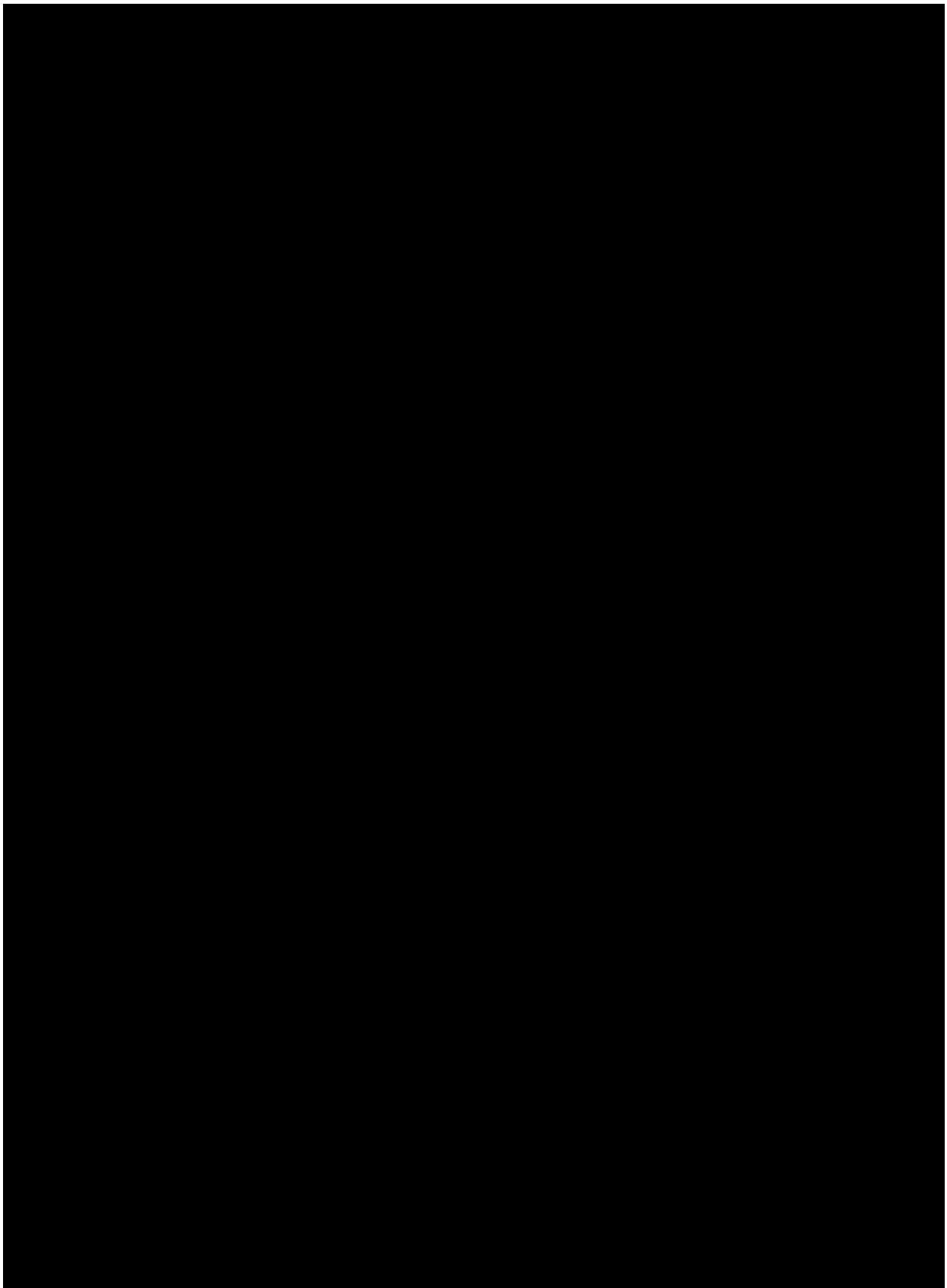


Figure 5.31. Map of Resource 18ANX520-4.



Figure 5.32. View of Resource 18ANX520-4, Facing North.



Figure 5.33. View of Shovel Test 31.12 Profile at Resource 18ANX520-4.

CABIN BRANCH GREENOCK HILLS STABLES SECTION

South of the Lare property, the section along Cabin Branch and within the Greenock Hills Stables property is an irregular shaped area measuring between 50 and 300 ft wide that follows the stream for approximately 3,600 ft (see Figure 5.2). The survey area deviates from Cabin Branch following three separate tributaries in the northeastern, northwestern, and southeastern portions of this section. Most of this section is in a hardwood forest with light to moderately dense understory, but portions of the survey area are located within agricultural fields (Figures 5.34–5.35). A 2,200-ft-long proposed temporary access road, which varies between 10 and 20 ft wide, extends northwest from the survey area following a grassy farm road (Figures 5.36 and 5.37). The areas surrounding Cabin Branch are wetland, but farther from the stream there are three terraces with well-drained soils that extend into the project LOD. According to the USDA NRCS (2020), the wet areas are underlain by Widewater and Issue soils (0–2% slopes) and the well-drained areas are situated on Marr-Dodon complex soils (5–25% slopes). The soils along the access road are mapped as Dodon very fine sandy loam (2–10% slopes) and Marr-Dodon complex (2–15 % slopes). Shovel tests were not excavated in areas of greater than 15 percent slope or in low and wet areas. The typical soil profile observed in shovel tests involved an Ap/Bt/Btg soil horizon sequence, with the Bt horizon varying in thickness; lower elevation areas displayed an Ap/Btg soil horizon sequence. Shovel tests on higher elevation landforms displayed an Ap/Bt1/Bt2/BC/C soil sequence. A total of 84 shovel tests were excavated in this area, and two pre-contact period isolated finds (18ANX520-5 and 18ANX520-6) were identified.



Figure 5.34. View of Terrace within CB Greenock Hills Stables Section, Facing West.



Figure 5.35. View of Agricultural Field in CB Greenock Hills Stables Section, Facing Northeast.



Figure 5.36. View of Farm Road in CB Greenock Hill Stables Section, Facing South.



Figure 5.37. View of Barn near Farm Road in CB Greenock Hill Stables Section, Facing Northwest.

18ANX520-5

Resource 18ANX520-5 is represented by one quartz bipolar flake recovered from the Ap horizon of shovel test 39.2 and a quartzite core recovered from the ground surface. The artifacts were located [REDACTED]

(see Figure 5.2; Figures 5.38 and 5.39). Shovel tests were excavated at 50-ft intervals across the landform and four delineation shovel tests were excavated at 25-ft intervals around shovel test 39.2, none of which produced artifacts. No additional artifacts were observed on the ground surface in this area.

Shovel tests displayed an Ap horizon (0–0.7 fbs) of brown (10YR 4/3) sandy loam underlain by a Bt1 horizon (0.7–1.0 fbs) of light yellowish brown (10YR 6/4) sandy loam underlain by a Bt2 horizon (1.0–2.4 fbs) of brownish yellow (10YR 6/6) sandy clay loam underlain by a BC horizon (2.4–3.4) of brownish yellow (10YR 6/6) mottled with light gray (2.5Y 7/2) loamy sand (Figure 5.40). An auger was used within shovel test 38.2, which revealed that the Bt2 horizon continued (3.1–3.6 fbs) and was underlain by a BC horizon (3.6–5.2 fbs) of light gray (2.5Y 7/2) loamy sand, followed by a BC2 horizon (5.2–8.2 fbs) of pale brown (2.5Y 7/4) gravely loamy sand, and finally a C horizon (8.2–10.2+ fbs) of light gray (5Y 7/2) sand; no artifacts or indications of cultural deposits were observed within the auger test.

Resource 18ANX520-5 is represented by one piece of quartz debitage recovered from the Ap horizon and a quartzite core recovered from the ground surface (Figure 5.41). The resource is associated with an ephemeral use of this area during an unidentified pre-contact period but does not represent a substantial archaeological resource or offer additional research potential. No further archaeological investigation is recommended for this resource.

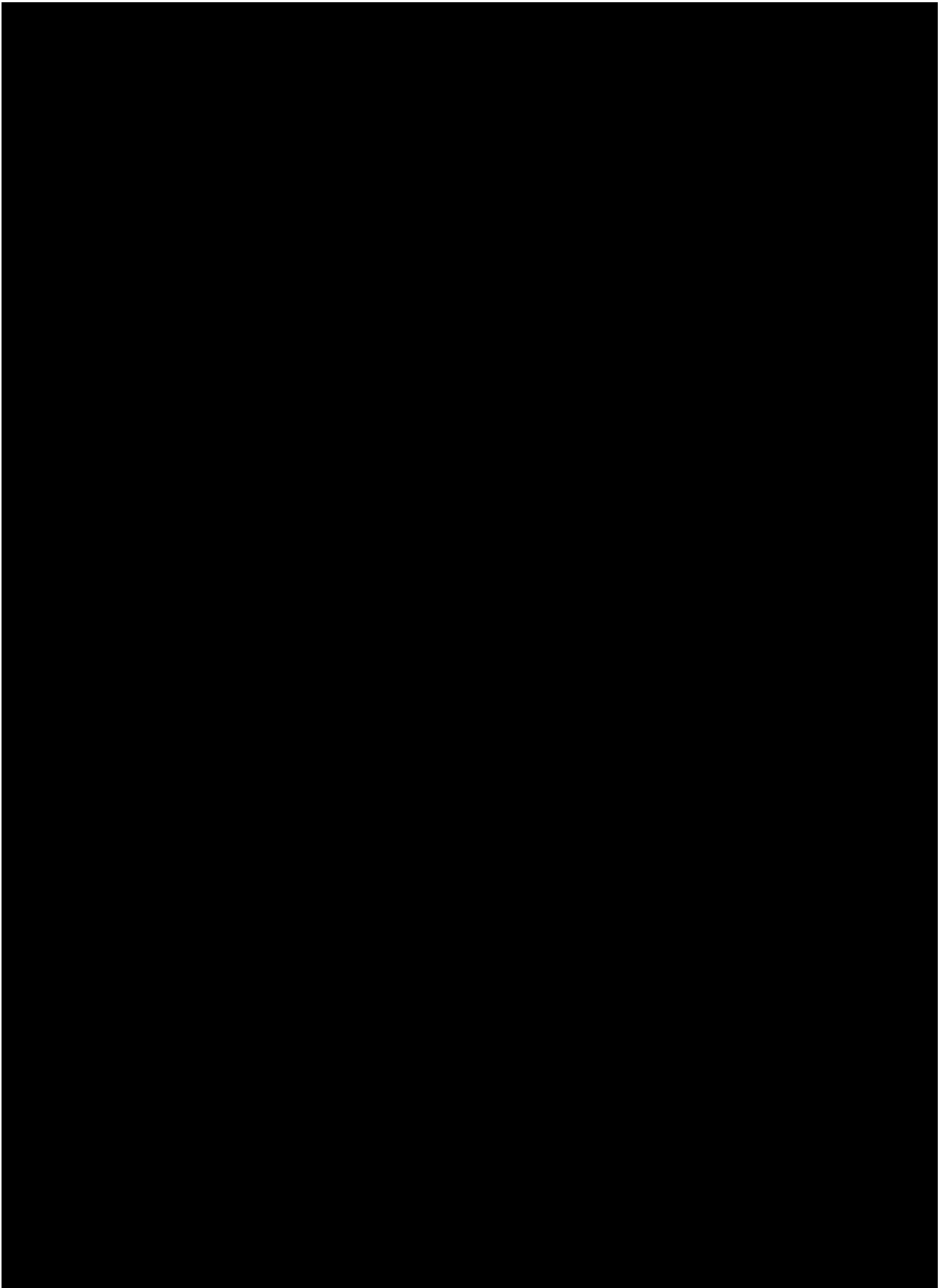


Figure 5.38. Map of Resource 18ANX520-5.



Figure 5.39. View of Resource 18ANX520-5, Facing Southwest.



Figure 5.40. View of Shovel Test 38.2 Profile at Resource 18ANX520-5.



Figure 5.41. Quartzite Core from Resource 18ANX520-5.

18ANX520-6

Resource 18ANX520-6 is represented by one quartz Small Savannah River PPK recovered from the ground surface [REDACTED] (see Figure 5.2; Figure 5.42). The PPK was located [REDACTED]. A shovel test was excavated near the find, and eight delineation shovel tests were excavated at 25-ft intervals around the find. None of the shovel tests produced artifacts nor were any additional artifacts observed on the ground surface in this area (Figure 5.43).

Shovel tests on the hillslope displayed an Ap horizon (0–0.9 fbs) of dark grayish brown (10YR 4/2) sandy loam underlain by a Bt1 horizon (0.9–1.4 fbs) of very pale brown (10YR 7/4) sandy clay loam underlain by a Bt2 horizon (1.4–1.8 fbs) of brownish yellow (10YR 6/6) sandy clay (Figure 5.44). Shovel tests at the base of the hillslope contained an Ap horizon (0–0.8 fbs) of dark grayish brown (10YR 4/2) sandy clay loam over an Agb horizon (0.8–3.4 fbs) of brown (10YR 4/3) sandy clay loam colluvium. An auger was used to examine deeper soil stratigraphy and encountered a Bg horizon (3.4–3.8 fbs) of light yellowish brown (10YR 6/4) sandy loam followed by a BCg horizon (3.8–5.2 fbs) of brownish yellow (10YR 6/6) sandy clay; no artifacts or indications of cultural deposits were observed within the auger test.

Resource 18ANX520-6 is represented by a single quartz Small Savannah River PPK recovered from the ground surface. The PPK is biconvex in cross section, has convex blade margins, has an asymmetrical and slightly concave base, and is 38.5 mm long, 22.7 mm wide, and 8.5 mm thick (Figure 5.45). The PPK indicates ephemeral use of this area during the Late Archaic period but does not represent a substantial archaeological resource or offer additional research potential. No further archaeological investigation of resource 18ANX520-6 is recommended.



Figure 5.42. View of Resource 18ANX520-6, Facing Northeast.

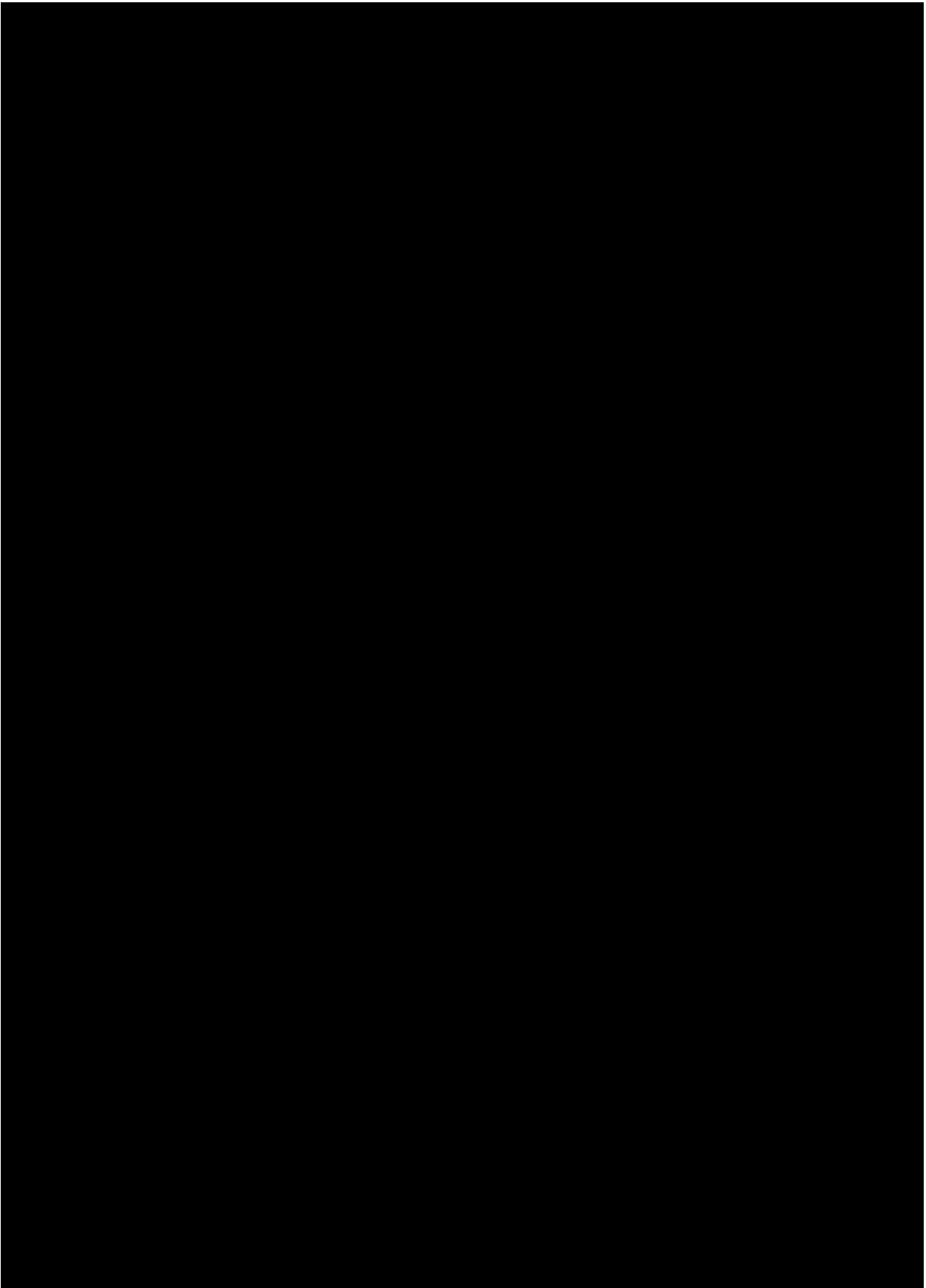


Figure 5.43. Map of Resource 18ANX520-6.



Figure 5.44. View of Shovel Test N475 E500 Profile at Resource 18ANX520-6.

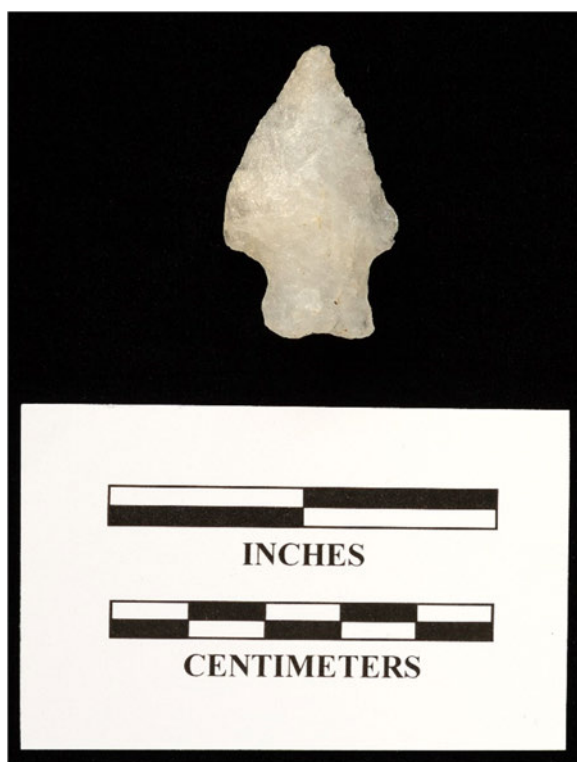


Figure 5.45. Quartz Small Savannah River PPK from Resource 18ANX520-6.

6. RESULTS OF MILL SWAMP (RFP-6) SITE PHASE I SURVEY

This chapter presents the results of the Phase I archaeological survey conducted along Mill Swamp Creek near the community of Bryans Road. To organize the discussion, the results are presented in four sections, representing separate, noncontiguous parts of the survey area, divided by a private road (Ward Place) that bisects the area and the separate LOD areas.

Background research indicates that there are no previously recorded sites within (or immediately adjacent to) the survey area, although several sites are situated [REDACTED] including one large site (18CH73, Pomonkey Creek North). This site is recorded [REDACTED] and contains multiple components, including Late Woodland and contact-era components, and may represent a Piscataway village mapped by John Smith (see Cowherd and Gibb 2015; McNett and Gardner 1975).

No structures appear to be depicted within the survey areas on 20th century maps (e.g., Smith and Rose 1922; USGS 1913, 1923), although several appear to be located just outside the LOD near the southwestern and northeastern sections. A 1944 topographic map produced by the War Department shows a road corresponding to Ward Place bordered by two structures west of that road and south of the creek (USACE 1944); the 1956 quadrangle map shows a few additional auxiliary buildings at this general location (USGS 1956). The 1968 quadrangle map depicts additional structures within the survey area (which appear to correspond to existing structures) (USGS 1968).

SOUTHWESTERN SECTION

This section is an irregularly shaped area located south of Ward Place and east of Fenwick Road, and Mill Swamp Creek runs roughly north-south through the eastern portion of this section (Figures 6.1–6.6). The section primarily contains an open unmown hay field, with areas of dense brambles located along the margins of the LOD and along Mill Swamp Creek. The eastern portion of the section, including the area adjacent to Mill Swamp Creek, is situated on a broad, relatively level terrace, and the western portion contains a series of terraces descending to the southwest toward Pomonkey Creek. The toe of a prominent ridge enters the section from the east. Portions of the low-lying areas closest to Mill Swamp Creek contained standing water at the time of the survey. Excessively well-drained Galestown-Hammonton complex soils are located on the more elevated terraces in the western portion of the section (USDA NRCS 2020). Potobac-Issue complex soils, which are poorly drained, frequently flooded, and formed in loamy alluvium on floodplains, are located across most of the remainder of the section (USDA NRCS 2020). The east-central portion of the section contains the western portion of a ridge that is underlain by Liverpool-Piccowaxen complex soils (5–15% slopes), which consist of moderately well-drained and somewhat poorly drained silty and loamy fluviomarine deposits.

Shovel tests excavated on the higher terraces encountered an Ap/E/B soil horizon sequence with variation in the thickness of the E horizon and in the characteristics of the B horizon. In most of these, the intermediate stratum (E horizon) overlay a clayey B horizon, although some shovel tests encountered excessively coarse, pebbly, or gravelly sediments. Other than the differences in texture, the B horizon varied from strong brown (7.5YR 4/6) to yellowish brown (10YR 5/6) in color. A few shovel tests in the area covered by brambles encountered artificially truncated soils and/or shallow gravel deposits. Only a few shovel tests were excavated in the low-lying areas of this section, and these encountered hydric soils and seeping ground water at or near the surface and were generally situated in areas of wetland vegetation. The stratigraphy encountered in those shovel tests that did not immediately encounter ground water typically contained an Ap horizon (0–0.75 fbs) of dark grayish brown (10YR 4/2) silt loam, over an E horizon (0.75–1.9 fbs) of yellowish brown (10YR 5/4) silt loam, underlain by a B horizon (1.9–2.4 fbs) of yellowish brown (10YR 5/6) clay loam grading to clay. Others were characterized by hydric, grayish brown (10YR 5/2) clay loam

mottled with mineral concretions extending from the surface and overlying gray clay. Shovel tests excavated at the toe of the ridge near the southern end of the section encountered a layer of sand in the upper portion of the soil profile. These shovel tests contained historic artifacts within an A horizon (0–1.3 fbs) of brown (10YR 4/3) coarse sand, which overlaid a B horizon (1.3–1.65 fbs) of strong brown (7.5YR 5/6) sandy clay, and was underlain by a hydric layer (1.65–2.3 fbs) of gray (10YR 5/1) clay loam grading to clay. These artifacts are associated with archaeological site 18CH971—see below. In total, 84 shovel tests were excavated within and just outside the southwestern section of the RFP-6 Mill Swamp survey areas, and one isolated find (18CHX115-1) and one archaeological site (18CH971) were identified.

18CHX115-1

Resource 18CHX115-1 was identified by a quartz Calvert PPK found in the Ap horizon (< 0.4 fbs) of a shovel test in the northeastern corner of an agricultural field on the highest terrace within this section (Figures 6.1, 6.7, and 6.8). The location was not distinguishable (in terms of relief or soil characteristics) from most of the other areas tested within that field and on that landform. The stratigraphy observed in this shovel test involved a brown (10YR 4/3) loamy sand plowzone (0–1 .0 fbs) overlying a yellowish brown (10YR 5/4) loamy sand E horizon (1.0–1.7 fbs). The underlying B horizon (to a depth of 2.4 fbs) was yellowish brown (10YR 5/6) wet loamy sand in the upper part that graded to wet sandy clay loam in the lower part (Figure 6.9). Soils in this area are most consistent with Hammonton type soils, which are described as loamier (finer) than Galestown soils and are derived from loamy fluviomarine deposits (USDA NRCS 2020). Shovel tests excavated across the remainder of this area did not produce any additional cultural material.

The Calvert PPK from 18CHX115-1 is 37 mm long, 23 mm across the shoulders, and a maximum of 7.3 mm thick (Figure 6.10). The stem portion is 10 mm in length and 14.7 mm in width. Calvert stemmed points are considered diagnostic of the Early Woodland period in the Mid-Atlantic region but may also extend into the Middle Woodland period (e.g., Kinsey 1972; McLearen 1991; Reeve 1992; Stephenson and Ferguson 1963; Steponaitis 1986; Waselkov 1982).

Resource 18CHX115-1 indicates ephemeral use of this area during the Early Woodland period. However, based on the isolated nature of the artifact and its recovery from the Ap horizon, additional investigation of this area is unlikely to provide significant or new information concerning Early Woodland occupations in the area.

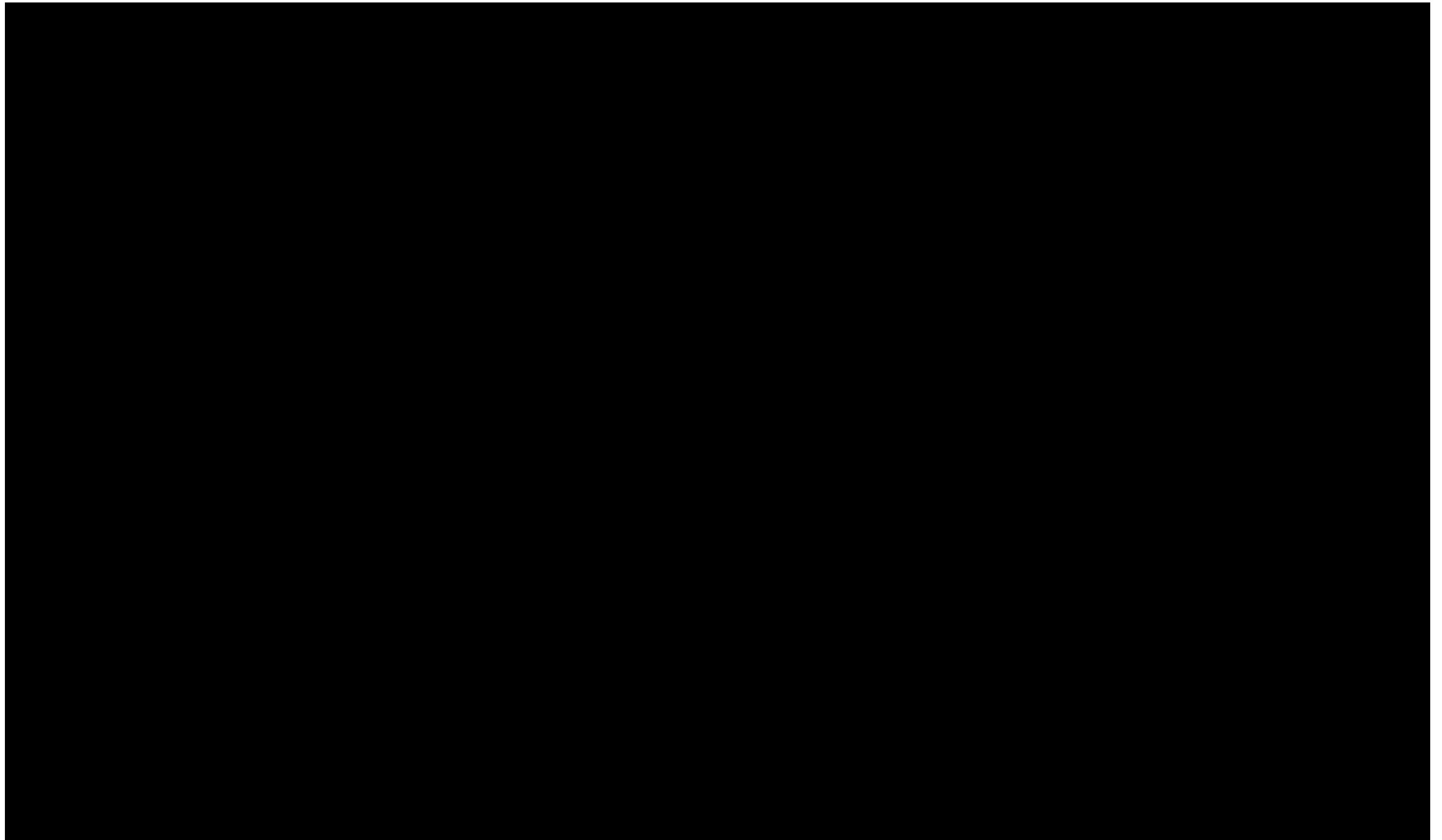


Figure 6.1. Mill Swamp Archaeological Survey Areas, Shovel Tests, and Resources.

This page intentionally left blank.



Figure 6.2. View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest.



Figure 6.3. View of Southwestern Section of Mill Swamp Survey Areas, Facing Northeast.



Figure 6.4. View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest.



Figure 6.5. View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest.



Figure 6.6. View of Southwestern Section of Mill Swamp Survey Areas, Facing Northwest.



Figure 6.7. View of Resource 18CH115X-1, Facing Northeast.

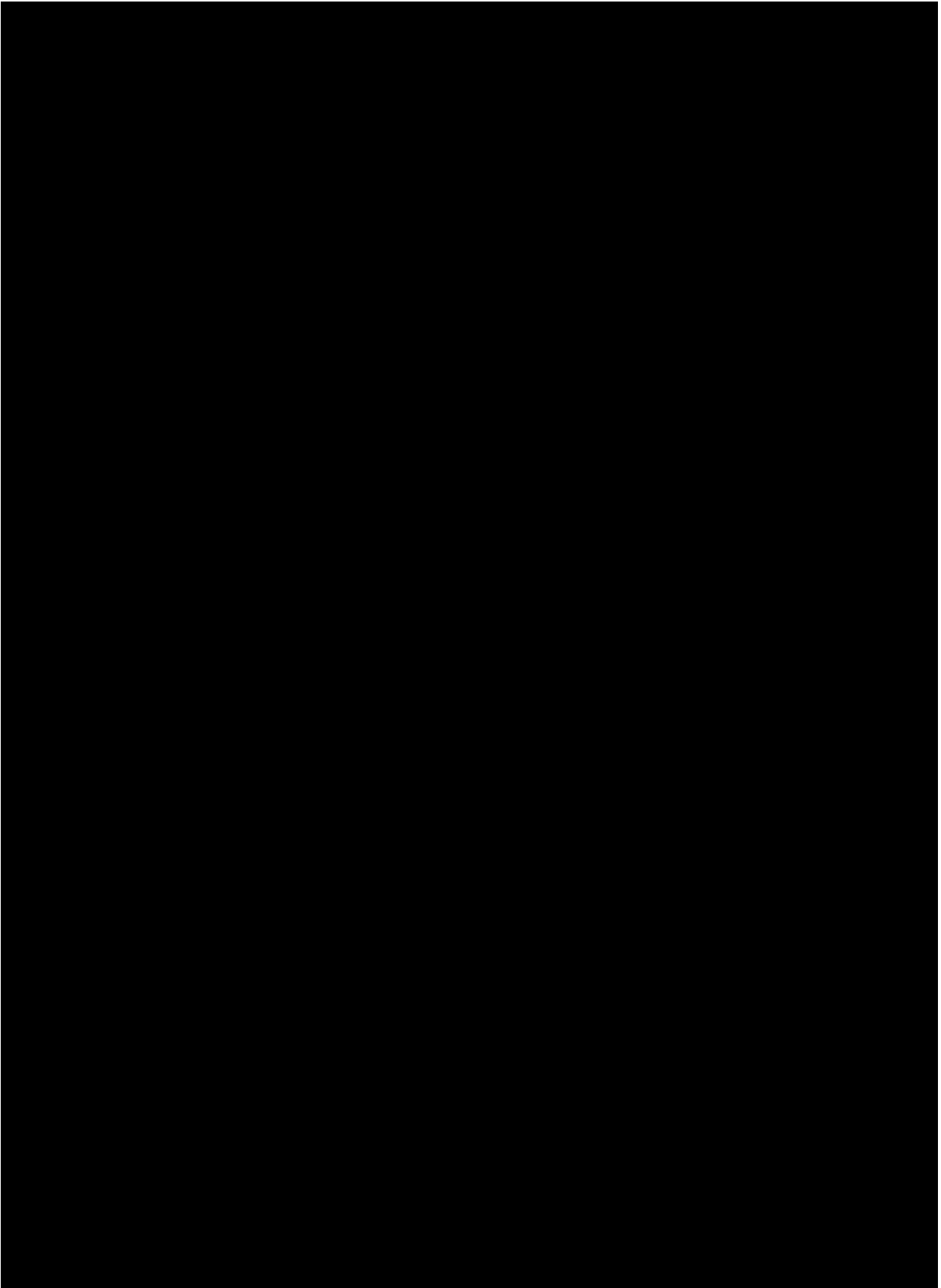


Figure 6.8. Map of Resource 18CHX115-1.



Figure 6.9. View of Representative Shovel Test Profile on Resource 18CH115X-1.

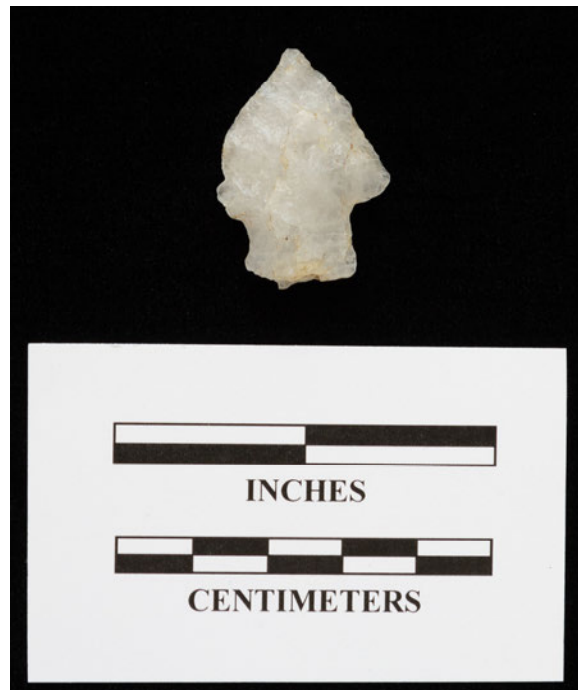


Figure 6.10. Calvert PPK from Resource 18CH115X-1.

18CH971

Site 18CH971 is located [REDACTED] (see Figure 6.1). [REDACTED] (Figure 6.11). [REDACTED] (see Figures 6.5 and 6.6) and slopes steeply within the survey area. The site was identified when pre-contact and historic artifacts were recovered from four shovel tests excavated at 50- and 25-ft intervals within the LOD. After the initial site delineation within the LOD, two additional transects of six shovel tests each were excavated outside the project LOD (with the landowner's permission), one running to the east and one to the southeast of the highest density shovel test (ST 24). None of the shovel tests on the transect running southeast contained artifacts, but three of the six shovel tests on the transect running east produced artifacts, extending the site boundary 300 ft to the east and ultimately forming an L-shaped site boundary (Figure 6.12). The site is bounded by negative shovel tests to the north and south, [REDACTED] but was not fully delineated to the east outside the project LOD.



Figure 6.11. View of Site 18CH971, Facing South.

Shovel tests on the ridge toe encountered a similar stratigraphic sequence, consisting of a 0.25 to 0.7 ft thick A horizon of very dark grayish brown (10YR 3/2) loamy sand (with pebbles and small cobbles) overlying a 0.7 to 1.0 ft thick E horizon of yellowish brown (10YR 5/4) loamy sand with abundant pebbles and occasional cobbles (Figure 6.13). This overlay a strong brown (7.5YR 4/6) sandy clay loam B horizon (occasionally cobbly in the upper part), which was encountered at depths of 1.1 to 1.7 fbs. An auger test in the base of shovel test 24 (which produced the highest number of artifacts) encountered similar sandy clay loam that graded to clay loam to a depth of 2.2 fbs. The shovel tests immediately east of shovel test 24 displayed a soil sequence similar to that observed on the ridge toe, but the higher elevation shovel tests and the shovel tests to the southeast displayed an Ap/Bt soil profile, likely due to land clearing, plowing, and erosion.

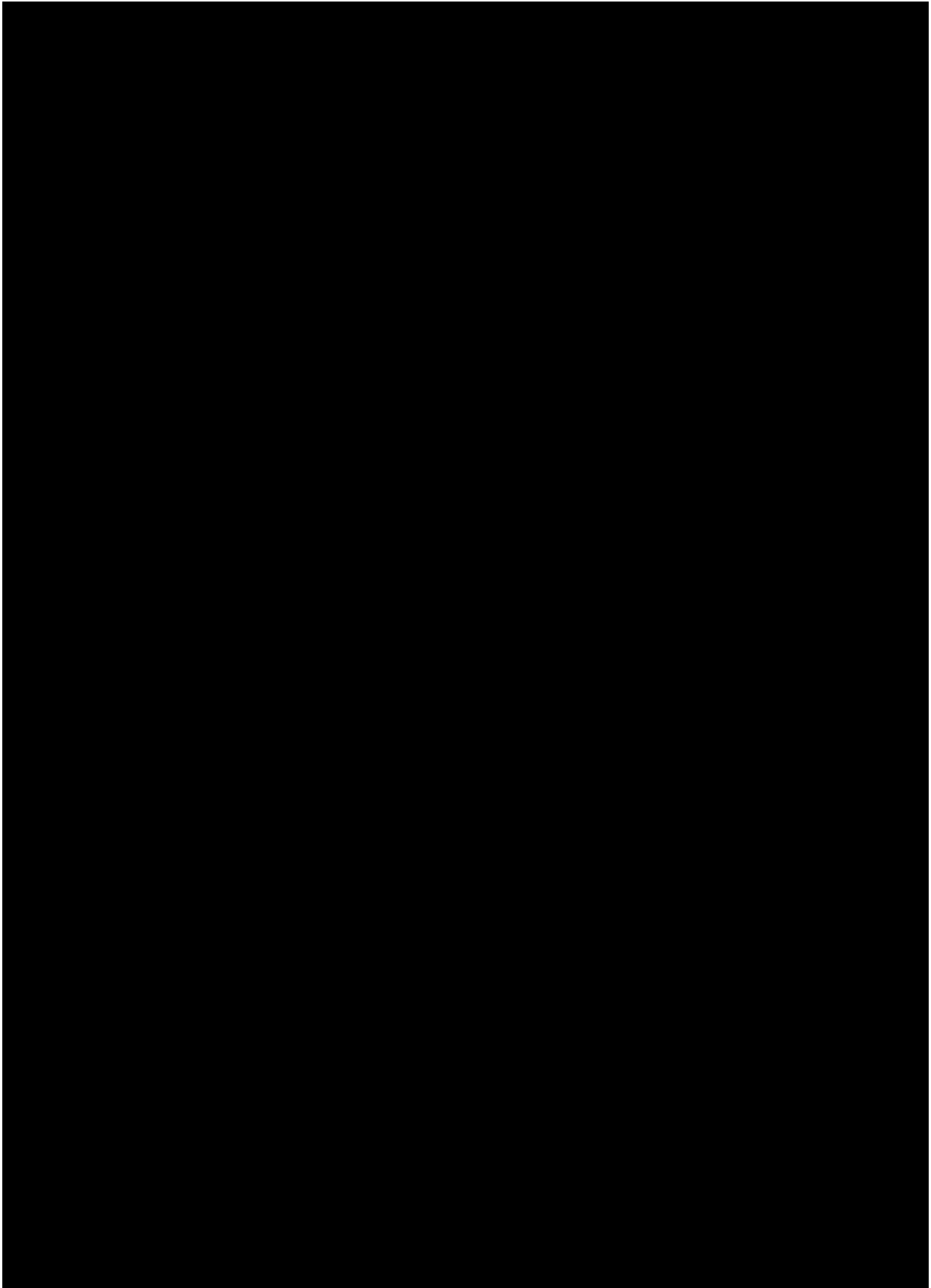


Figure 6.12. Map of Site 18CH971.



Figure 6.13. View of Representative Shovel Test Profile at Site 18CH971.

Areas of site 18CH971 that are situated on the steeper slopes are mapped as Liverpool-Piccowaxen complex soils, and the top of the landform farther to the west is mapped as Piccowaxen loam (0 to 2% slopes). The soils encountered at the base of the ridge are consistent with Croom series soils (Hall and Matthews 1974:14), which is a minor type within the Liverpool-Piccowaxen complex. Croom series soils are described as well-drained gravelly upland soils that are formed in very old fluvial deposits of gravel containing sand and clay, with a strong brown, gravelly sandy clay loam subsoil (Hall and Matthews 1974:14). The description of a cross-section of Croom gravelly loam is identical to the stratigraphic sequence encountered on the ridge toe at site 18CH971 (Hall and Matthews 1974:14).

Shovel test 24 produced 24 pieces of debitage; the remaining shovel tests generated from one to five artifacts each. Eight of the 22 shovel tests excavated across the site produced artifacts; four of these eight were situated directly on or immediately off the ridge toe, but outlying shovel tests 28 and 148 generated a single pre-contact period artifact each (see Figure 6.12). Four shovel tests produced pre-contact period artifacts only, two (25 and 148) contained historic and pre-contact period artifacts, and the two easternmost shovel tests (150 and 151) yielded only historic period artifacts. These artifacts were found in the two upper strata (A/Ap and E horizons) at depths no greater than 1.4 fbs.

The remains of a concrete slab and cinder block foundation was identified in the wooded area between shovel tests 148 and 149, and shovel tests 150–152 were excavated near outbuildings within the backyard of a dwelling located approximately 70 ft north of the transect (Figure 6.14). A structure is depicted near the location of 18CH971 on early 20th century USGS (1913, 1923) topographic maps. A structure with outbuildings is depicted near the location of 18CH971 on the USGS 1944 Mount Vernon, VA topographic map, and the same structure is mapped at that location through the 1983 edition, at which point subsequent editions depict no structures in the vicinity. The dwelling and multiple outbuildings are visible on aerial photographs dating from 1957 through 2019, and the dwelling was still standing during the fieldwork in October 2020. All of these structures are located at least 100 ft outside the project LOD.



Figure 6.14. View of Foundation Remains at Site 18CH971, Facing Southwest.

The pre-contact period assemblage ($n=35$) includes the base of a PPK that is generally lanceolate in shape, an early stage biface fragment, a retouched bipolar flake, and 32 pieces of unmodified debitage (17 quartzite, 15 quartz) (Table 6.1). The fragmentary PPK is made of quartzite and may represent a Middle Woodland period Jack's Reef pentagonal or a Middle Woodland Fox Creek PPK (Figure 6.15a); the biface fragment is made of quartz and appears to represent an early stage of reduction (Figure 6.15b); and the early stage quartz bipolar flake with a retouched edge may also be utilized (Figure 6.15c).

Table 6.1. Artifacts from Site 18CH971 by Horizon.

Functional Group	Artifact Type	Horizon			Total
		A	E	A/E	
Tool	Unclassified Lanceolate PPK Fragment, Quartzite			1	1
	Early Stage Biface, Quartz	1			1
	Retouched Bipolar Flake, Quartz		1		1
Debitage	Flake Fragment, Quartz			15	15
	Flake Fragment, Quartzite	3		8	11
	Broken Flake, Quartzite	2	1	2	5
	Shatter, Quartzite			1	1
Architectural	Window Glass			2	2
Kitchen	Gray Salt Glazed Stoneware			1	1
	Glass Container, Unclassified, Green			1	1
	Glass Container, Unclassified, Colorless			3	3
	Glassware, Press Molded, Depression Era			1	1
Total		6	2	35	43

The historic period artifacts include one undecorated gray salt glazed stoneware sherd, one press-molded glassware fragment, four unclassified glass container fragments, and two aqua window glass fragments (see

Table 6.1). One small brick fragment was observed in shovel test 148, but not collected. The stoneware sherd represents a hollowware container and exhibits an unwashed interior (Figure 6.16a). Salt glazed stoneware is associated with early 18th to 20th century manufacture (Ketchum 1991). The glassware fragment is pale pink and is Depression-era (1920s–1950s) glass (Figure 6.16b). One of the glass container fragments is 7-Up green in color, suggesting mid-20th century manufacture (SHA 2020); the other three are small fragments of colorless glass. The stoneware sherd was recovered from the ridge toe, but all of the other historic period artifacts were recovered from the higher elevation portion of the landform to the east—closer to the standing structures and the former structure locations as shown on historic mapping. Collectively, the historic period artifacts are likely associated with an early to mid-20th century occupation.

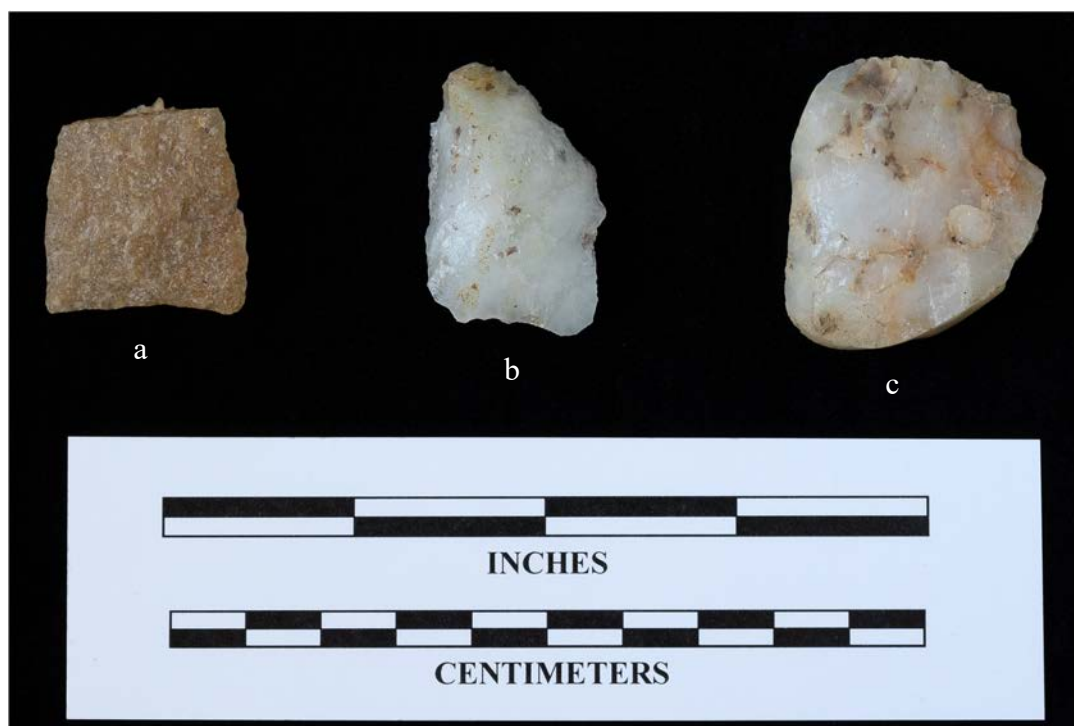


Figure 6.15. Representative Pre-Contact Artifacts from Site 18CH971. a) quartzite lanceolate PPK fragment; c) quartz early stage biface; e) quartz retouched flake

Site 18CH971 is associated with limited pre-contact period (likely Middle Woodland) and limited historic period (likely early through mid-20th century) use of this area. Only eight of the 27 shovel tests excavated on and in close proximity to the site produced artifacts, and all but one of these produced a relatively low number of artifacts. Shovel test 24, which produced 24 quartz and quartzite flakes, likely represents a very localized lithic tool maintenance episode. All of the historic and most (75%) of the pre-contact artifacts were found in the A/E interface zone, with only two pre-contact artifacts recovered from the E horizon and six from the A horizon. The pre-contact period artifacts may be associated with just one or a few short term resource procurement visits to the area, and the historic period artifacts are likely associated with the occupation that is more concentrated to the east outside the LOD and only peripherally represented in the project LOD. No evidence of intact substantial deposits or subsurface cultural features associated with either the historic or pre-contact period use of this area was found; the historic outbuilding foundation remnant is located well outside the LOD. It is possible that the portion of site 18CH971 located outside the project LOD, which was only investigated in a limited manner, could contain valuable data regarding pre-contact or historic period occupations of the area, but there is no evidence that the portions of the site within the project LOD contain meaningful artifact patterns or intact substantial deposits. While there are several nearby historic structures, all of them are located well outside the project LOD. Site 18CH971 is unassessed for NRHP eligibility, however, the results of the survey indicate that those parts of the site within the project

LOD lack the integrity, clarity, and substantial deposits that would allow it to provide information important in history, and no further investigation of this site is recommended for this project as currently scoped.

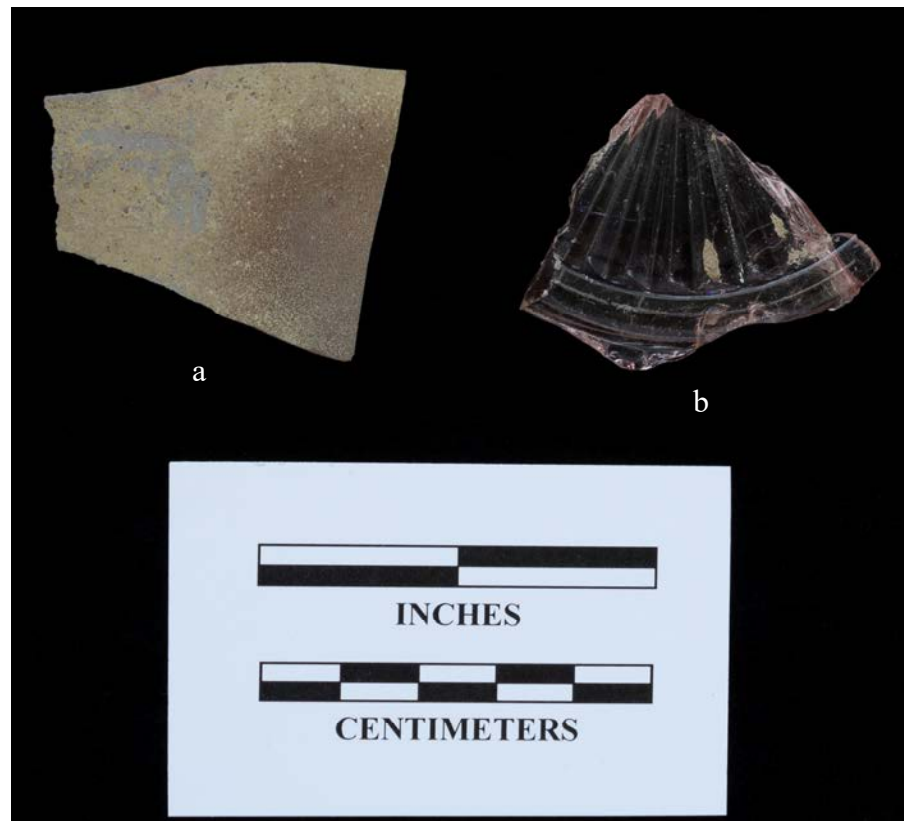


Figure 6.16. Representative Historic Artifacts from Site 18CH971. a) gray salt glazed stoneware; b) pale pink press molded Depression era glassware base

SOUTHEASTERN SECTION

This section of the Mill Swamp stream mitigation site LOD is located south of Ward Place and northwest of a private road. Most of this area is used as a private dump and is covered in modern refuse (e.g., appliances, tires, furniture, and bagged household trash) and/or dense secondary growth (Figures 6.17–6.18). Most of this area is mapped as Piccowaxen loam (PcA, 0–2% slopes), a somewhat poorly drained soil type formed in silty and loamy fluviomarine deposits (USDS NRCS 2020). The northeastern corner is underlain by Potobac-Issue complex soils (USDA NRCS 2020). This section of the LOD is intended for materials storage during the stream restoration process.

Fourteen shovel tests were excavated outside of the limits of the trash pile, and no pre-modern artifacts were found. Relatively intact soils were encountered in the western portion of this section, where a few small seep springs are situated. In general, these displayed an A horizon (0–0.25 fbs) of very dark grayish brown (10YR 3/2) sandy loam, over an E horizon (0.25–0.95 fbs) of brown (10YR 5/3) silt loam, underlain by a B horizon (0.95–1.5 fbs) of yellowish brown (10YR 5/6) silty clay loam. Soils encountered in the remainder of this area were generally disturbed, truncated, and/or compacted.



Figure 6.17. View of Southeastern Section, Facing Northeast.



Figure 6.18. View of Trash Pile in Southeastern Section, Facing Southeast.

NORTHEASTERN SECTION

This section is situated north of Ward Place, east of a tributary to Mill Swamp, and well east of Fenwick Road, and is comprised of two not quite contiguous but adjacent areas of LOD (see Figure 6.1). The southern portion primarily encompasses an agricultural field situated on a knoll and extends to the east and northeast along the drainage (Figures 6.19 and 6.20). The northern portion is located within a lightly wooded area to the north of a residence and on low terraces adjacent to the drainage. The southern portion of this section is primarily situated on Liverpool-Piccowaxen complex soils (5–15% slopes), with the eastern part underlain by Piccowaxen loam (0–2% slopes). The northern portion of this section is entirely underlain by Potobac-Issue complex, frequently flooded soils (USDA NRCS 2020). In total, 54 shovel tests and one 5 × 5 ft test unit (TU 1) were excavated within this section, and all encountered a simple A/B soil horizon sequence consisting of a plowzone over a B horizon; 19 of the shovel tests and the test unit generated artifacts associated with site 18CH972. No shovel tests were excavated in the low lying, wet areas that comprised the northern portion, although two shovel tests were excavated just outside the LOD in areas that did not contain standing water at the time of the survey; no artifacts were found (see Figure 6.1).

18CH972

Site 18CH972 is located [REDACTED] (see Figure 6.1; Figures 6.21 and 6.22). The site was identified when artifacts were recovered from five shovel tests excavated at 50-ft intervals across this landform. In total, 50 shovel tests were excavated across this area, and 19 of these produced cultural material—three with only pre-contact artifacts, 12 with only historic artifacts, and two with pre-contact and historic artifacts (Figure 6.23). All of the artifacts were found in the plowzone. Shovel testing was conducted outside the project LOD but did not define a clear site boundary to the northwest. However, the terrain drops markedly in this direction from the knoll down to the floodplain of the drainage (see Figure 6.1), and this area would have been unsuitable for habitation.

All shovel tests encountered similar stratigraphic sequences, consisting of a 0.6 to 1.3 ft thick brown (10YR 4/3) silt loam plowzone conformably overlying a strong brown (7.5YR 5/6) or brown (7.5YR 5/3, 7.5YR 5/2) clay loam B horizon. This appears consistent with plowed Liverpool-Piccowaxen complex soils, which typically exhibit a silt loam A horizon over a silt loam E horizon extending to a depth of five inches (USDA NRCS 2020). The underlying Bt horizon is described as silt loam in the upper part (to a depth of 13 inches) and clay loam in the lower part (USDA NRCS 2020).

Test Unit 1 (N505 E455) was placed inside the project LOD in the western portion of the site. The 5 × 5 ft test unit was excavated in 0.25-ft levels within strata. Six levels were excavated, four within the Ap horizon and two within the Bt horizon, and the unit reached a maximum depth of 1.4 ft. The stratigraphic sequence encountered in TU 1, which involved an Ap horizon (0–0.9 fbs) of yellowish brown (10YR 5/4) silt loam underlain by a Bt horizon (0.9–1.4+ fbs) of brownish yellow (10YR 6/6) silty clay, was similar to that observed in the shovel tests (Figure 6.24). Test Unit 1 produced five quartzite FCR and 32 historic period artifacts associated with the kitchen and architectural functional groups, all from the plowzone. The first level of the test unit contained only a single piece of colorless glass. Level 2 yielded two of the FCR and the highest density of historic artifacts ($n=20$). Two FCR and seven historic artifacts were collected from Level 3, and Level 4 produced one FCR and four historic artifacts.



Figure 6.19. View of Northeastern Section, Facing Northeast (note abandoned barn in background).



Figure 6.20. View of East-Central Portion of Northeastern Section, Facing Southwest.



Figure 6.21. View of Site 18CH972, Facing North.



Figure 6.22. View of Site 18CH972, Facing West.

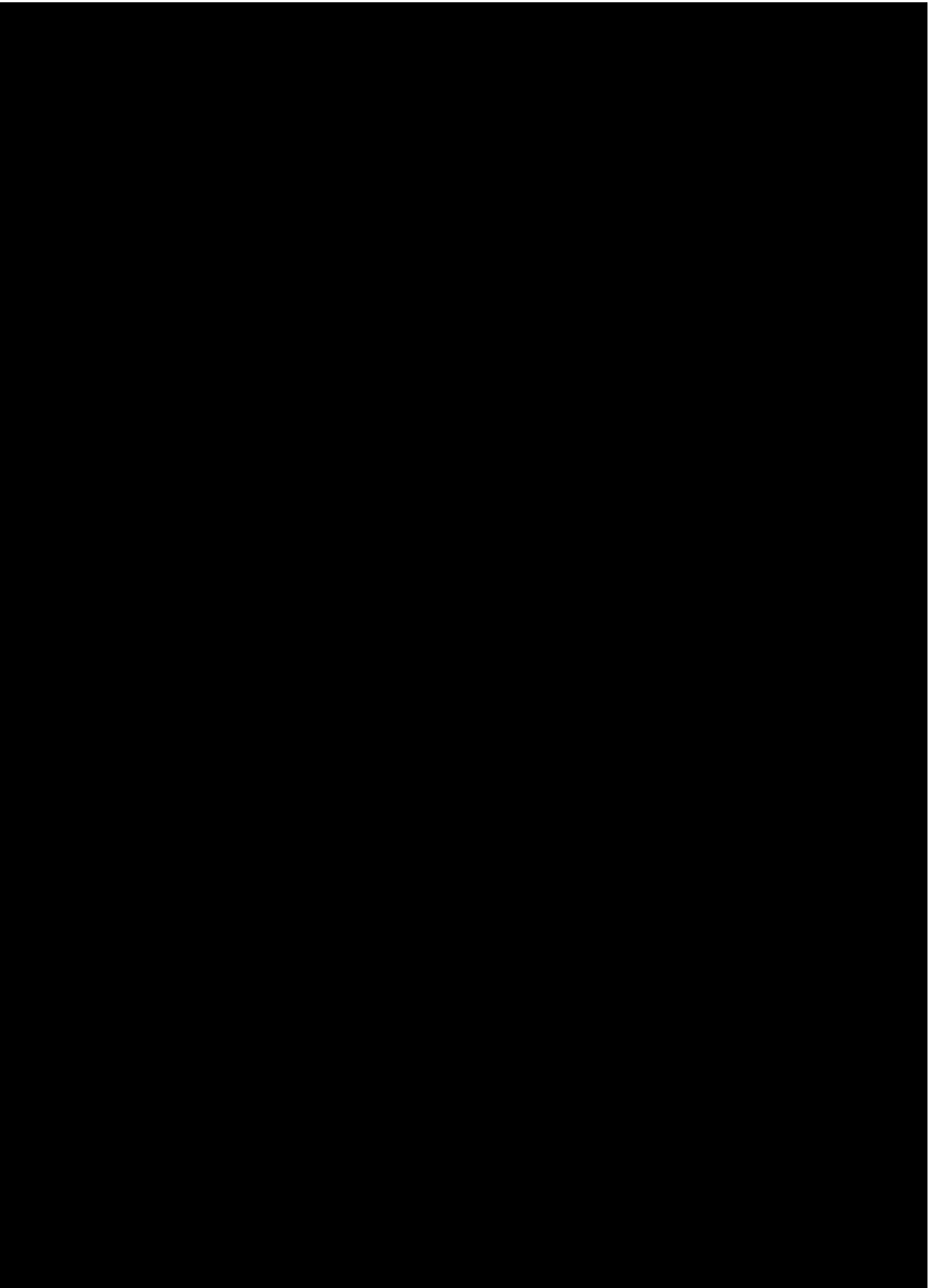


Figure 6.23. Map of Site 18CH972.



Figure 6.24. View of Test Unit 1 West Wall Profile at Site 18CH972.

The pre-contact period assemblage from 18CH972 consists of 10 artifacts, including a quartz Early Woodland period Calvert PPK, a quartz bipolar core fragment, one quartz flake, one quartzite flake, and six quartzite FCR (Table 6.2; Figure 6.25). The asymmetrical PPK is complete, and is 36.2 mm long, 24.6 mm wide at the shoulders, and 7.9 mm thick. The stem is 10.9 mm in length and 10.5 mm in width. Five of the six FCR were recovered from TU 1, and the remaining pre-contact artifacts were recovered from shovel tests. All of the pre-contact artifacts were found in the plowzone and all but three of these were found in levels that also contained historic artifacts. Half of the pre-contact period artifacts were found in TU 1, and the remainder were very lightly scattered across the site. Although the FCR may have been associated with a cultural feature, they were found in three different levels in TU 1, and no other indications of a cultural feature were observed. The pre-contact period assemblage from 18CH972 appears to indicate limited use of this area during at least the Early Woodland period but does not seem to be associated with a substantial pre-contact period occupation in this area.

A total of 108 historic artifacts were recovered from 18CH972 (Table 6.2; Figure 6.26), including 76 from shovel tests and 32 from TU 1, all from the plowzone. The historic artifacts from 18CH972 include four undecorated whiteware sherds, one molded porcelain sherd, three glass canning jar lid liner fragments, one colorless glass bottle fragment, 31 container glass fragments (24 colorless, two aqua, two amethyst tinted, and three amber), one press-molded amethyst tinted glassware fragment, three colorless glassware fragments, one small fragment of a phonograph record, one modern bullet, one cast iron stove leg, 28 pieces of window glass (aqua tinted), one cut nail, three wire nails, five brick fragments, two unclassified metal objects, one unclassified plastic object, and 21 pieces of coal slag. All of these reflect late 19th to 20th century manufacture periods. Most are kitchen and architectural group items, with activities, arms, and furniture groups each represented by a single artifact. The assemblage suggests a domestic occupation of this area, likely associated with a structure depicted in the vicinity of the site on early 20th century maps (e.g., Smith and Rose 1922; USGS 1913, 1923). No structure is shown in this location on maps dating from 1925 through 1965, although the abandoned barn located just north of the site is shown on maps dating to 1968 and 1971, and is depicted as a residential structure on maps dating to 1981 and 1983 (USGS 1925, 1934,

1939, 1945, 1965, 1968, 1971, 1981, 1983). Historic period artifacts were found across the site but were generally more concentrated in the western portion of the site. Most shovel tests produced from one to five artifacts each, two contained from six to 10 artifacts, and only three shovel tests yielded more than 10 artifacts, although all 17 of the items from one of these are coal slag fragments. These three higher density shovel tests (121 [eastern], 125 [south-central], and 163 [northwestern]) are located in different portions of the site and other than the concentration of coal slag in the eastern shovel test, contained both kitchen and architectural items. Artifact distribution patterns do not suggest a possible location for a former structure within the site boundary. Although the structure depicted on the early 20th century maps was likely located somewhere in this vicinity, no evidence of above-ground or subsurface cultural features was encountered during the investigation of site 18CH972.

Table 6.2. Artifacts from Site 18CH972 by Horizon.

Functional Group	Artifact Type	Horizon
		Ap
Tool	Calvert PPK, Quartz	1
Debitage	Bipolar Core, Quartz	1
	Flake Fragment, Quartz	1
	Flake Fragment, Quartzite	1
	FCR, Quartzite	6
Other Lithic	Phonograph Record, Fragment	1
Activities	Brick, Fragment	5
Architectural	Nail, Cut	1
	Nail, Wire	3
	Window Glass	28
	Bullet, Copper, Full Metal Jacket	1
Arms	Cast Iron Stove Leg	1
Furniture	Porcelain, Molded	1
Kitchen	Whiteware, Undecorated	4
	Glass Canning Jar Lid Liner, Fragment	3
	Glass Container, Bottle, Fragment	1
	Glass Container, Unclassified, Fragment	31
	Drinking Glass, Fragment	1
	Glassware, Press Molded, Fragment	1
	Glassware, Unclassified, Fragment	2
	Coal Slag	21
	Unclassified Metal Object	2
	Unclassified Plastic Object	1
Total		118

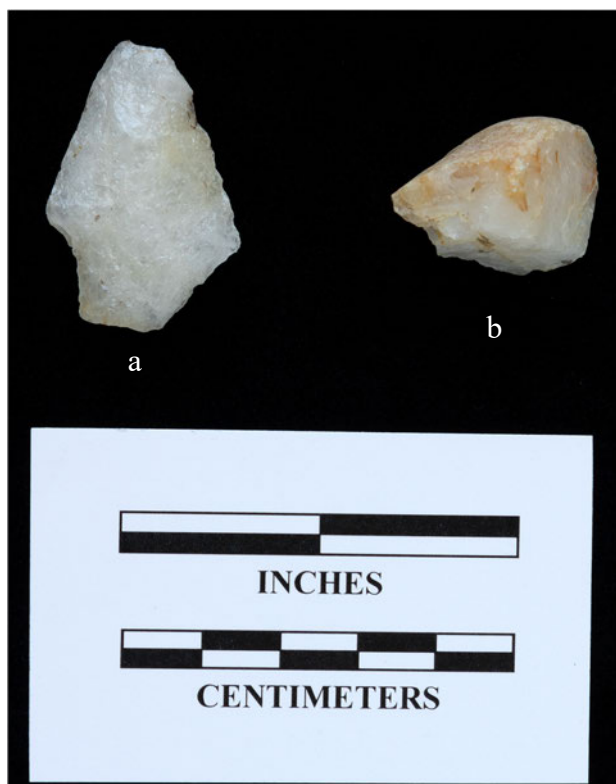


Figure 6.25. Pre-Contact Artifacts from Site 18CH972.
a) quartz Calvert PPK; b) quartz bipolar core

The pre-contact component(s) on site 18CH972 is represented by a very low-density, widely dispersed scatter of lithic artifacts. The Calvert PPK indicates that an Early Woodland period component is present at the site. The pre-contact period debitage assemblage represents very limited lithic reduction activities, while the PPK is suggestive of hunting activities. The recovery of six FCR suggests the potential for the presence of a hearth type feature on the site, although no evidence of cultural features was found.

The historic period component dates to the late 19th to 20th century and is likely associated with a structure that was located in this area until about 1923, but also likely contains artifacts distributed across the field during later uses of the site area for agricultural purposes. All of the pre-contact and historic artifacts were recovered from the plowzone and there are no discrete distributions of any types of artifact classes. Site 18CH972 appears to lack the integrity, clarity, and substantial deposits or cultural features that would allow it to provide substantive information regarding local pre-contact or historic period occupations. Site 18CH972 is recommended not eligible for the NRHP, and no further investigation of the site is recommended for this project as currently scoped.



Figure 6.26. Representative Historic Artifacts from Site 18CH972. a) molded porcelain body sherd; b) colorless bottle neck/rim; c) amethyst tinted press molded glassware; d) cast iron stove leg; e) unidentified cast iron object

NORTHWESTERN SECTION

This section is located north of Ward Place and east of Fenwick Road and includes the area surrounding the confluence of Mill Swamp and an unnamed drainage (see Figure 6.1; Figures 6.27–6.30). The area is situated in fallow agricultural fields on a relatively level floodplain, and standing water was present over much of this area at the time of the survey. A majority of this section is underlain by Potobac-Issue complex soils, which are frequently flooded and poorly drained, and the slightly more elevated areas in the east-central and southeastern portions of this section are underlain by Liverpool-Piccowaxen complex soils (5–15% slopes), which formed in silty and fluviomarine deposits and are moderately well drained and somewhat poorly drained (USDA NRCS 2020). Most shovel tests encountered soils consistent with the Piccowaxen loam soil profile (USDA NRCS 2020). In total, 21 shovel tests were excavated within this area, and no pre-modern artifacts were recovered.

Shovel tests west of the drainages encountered a very dark grayish brown (2.5Y 3/2) silt loam (0–0.45 fbs) that overlay a thin band of light yellowish brown (2.5Y 6/3) clay fill (0.45–0.6 fbs). This overlay grayish brown (2.5Y 5/2) silty clay loam with occasional pebbles (0.6–1.2 fbs). An auger test at the base of one shovel test encountered gravels at a depth of 2.25 fbs. Additional shovel tests within the project LOD encountered similar soils, except for the shovel test situated in a wooded area. That shovel test encountered a thin, dark grayish brown (10YR 4/2) sand Oi/A horizon (0–0.2 fbs) that overlay dark yellowish brown (10YR 5/6) sand that graded to loamy sand and sandy loam with depth (0.2–2.1 fbs). This overlay grayish brown (10YR 5/2) and brownish yellow (10YR 6/6) sandy loam and the water table (2.1–2.5 fbs).



Figure 6.27. View of Northwestern Section, Facing Northeast.



Figure 6.28. View of Northwestern Section, Facing Northeast.



Figure 6.29. View of Northwestern Section, Facing South.



Figure 6.30. View of Northwestern Section, Facing West.

A shovel test placed on a slightly higher area that parallels the drainage to the east within the LOD encountered a 2.4 ft thick top stratum of brown silt loam (0–2.4 fbs), which overlay grayish brown (10YR 5/2) clay loam with increasing redoximorphic features to a depth of 4.6 fbs. Another shovel test in this area encountered a dark grayish brown (10YR 4/2) plowzone (0–1.35 fbs). The underlying stratum was below the water table and consisted of dark yellowish brown (10YR 4/4) silty clay loam (1.35–1.9 fbs). An auger test confirmed that this stratum extended to a depth of 3.3 fbs and was underlain by grayish brown clay with redoximorphic features to a depth of 4.1 fbs where coarse sand and gravels were encountered.

No cultural materials were recovered from the Northwestern section.

This page intentionally left blank.

7. RESULTS OF PAINT BRANCH (AN-6 AND AN-7) SITES PHASE I SURVEY

This chapter presents the results of Phase I archaeological survey that was completed in support of the proposed AN-6 and AN-7 stream mitigation projects along Paint Branch. Archaeological investigations were mostly confined to areas outside the I-95/I-495 interchange, since the interchange has previously been surveyed for archaeological resources and has been extensively disturbed by highway construction, utilities, and ongoing flooding and redeposition.

Several individual parts of the survey areas were examined, including the floodplain, levee, and lower terraces adjacent to the east side of Paint Branch, similar landforms on the west side of Paint Branch north and south of an unnamed tributary in the north (Tributary 1) that is one of the foci of AN-7, the west side of Paint Branch along both sides of Tributary 1, west of Paint Branch on both sides of a second unnamed tributary farther south (Tributary 2), and the area surrounding Paint Branch to the north of the interchange within the M-NCPPC's Powder Mill Community Park. To facilitate the discussion, the results are presented in those five sections—Paint Branch East, Paint Branch West, Tributary 1, Tributary 2, and M-NCPPC Property. The first four are located on the BARC's South Farm within the I-95/I-495 interchange, and the Powder Mill Community Park is located on M-NCPPC property northwest of the interchange. For each section, a brief summary of the previous investigations and the resources recorded within that section is presented first, followed by details regarding the survey methods and results and the newly identified or revisited cultural resources for that section. Several previous Phase I surveys have been conducted within this survey area, and much of the area was surveyed by Arnold et al. (2020), Diamanti et al. (2008) and Clark (1973). Several archaeological resources have previously been identified either within or just outside of the survey areas. Much of the area containing the Paint Branch sites has historically been in use for agricultural purposes, and only one structure is shown in this general area on historic maps—the mid-19th century Kierman family residence near Tributary 2 (Hopkins 1861, 1878; USGS 1892, 1907, 1917, 1926, 1945, 1949).

PAINT BRANCH EAST SECTION (AN-6)

The Paint Branch East section is part of the AN-6 stream mitigation site and located south of I-495 and immediately east of Paint Branch. The section is a roughly upside-down L-shaped area measuring between 185 and 740 ft wide and from 345 to 1,325 ft long, with the long portion running parallel to Paint Branch and the short portion running parallel to I-495 (Figure 7.1). The east side of this section is characterized by T1 and T2 terraces and a levee along the east bank of Paint Branch. This section of the survey area is mainly situated on a level T1 terrace that is currently divided into agricultural test plots that were either fallow or in cultivation at the time of the survey (Figures 7.2–7.3). This section of the Paint Branch survey area also contains an artificial levee along the bank of Paint Branch (Figure 7.4). The levee is about 5–10 m from the east bank of Paint Branch, and there is a steep slope from the top of the levee to the moderately densely wooded stream bank. According to a BARC employee (George Meyers, personal communication 2020), the levee was constructed in 1972 after Hurricane Agnes passed through the area to prevent future overbanking of Paint Branch. Other disturbances in the area include a sewer line located parallel to and approximately 5 m east of the base of the artificial landform. An 8-ft-tall fence is located another 1–1.5 m east of the sewer line and also runs parallel to the levee and sewer line. Finally, the northeastern portion of this section is situated along a T2 terrace scarp that is separated by a small drainage ditch or channelized stream that is lined with cattails and other types of wetland vegetation (Figure 7.5). Paint Branch runs along the western edge of this section and in this area comprises a broad stream approximately 10 m wide with a very rocky bed composed of large cobbles and boulders with numerous gravel bars along the stream bank (Figure 7.6).

Although a small subset of the soil types mapped by the USDA NRCS (2020) in the extreme northeastern portion of this section are characterized as moderately well drained (Russett-Christiana complex, 2–5% slopes), the majority of the area, including all of the T1 and T2 terraces, is situated on Codorus and Hatboro soils, which are frequently flooded and typically poorly drained but can include areas with better drainage. Previously recorded site 18PR1133, a scatter of late 19th century artifacts, is located [REDACTED] (see Figure 7.1). As this site has been recently recorded and the area in general, which is severely disturbed and on steep slope, has been recently surveyed (Arnold et al. 2020), no shovel tests were excavated in that portion of the survey area. No shovel tests were excavated on the steeply sloped stream embankment, the disturbed northern portion of this survey area along the I-495 right-of-way and embankment, or in areas previously disturbed by construction of the sewer line. In total, 83 shovel tests were excavated along seven transects across the levee and T1 and T2 terraces during the survey in this section, and seven of these produced artifacts. One pre-contact site (18PR1191), one pre-contact isolated find (18PRX284-1), and one resource consisting of two redeposited historic artifacts (18PRX284-4) were identified in this section.

Levee

In order to determine whether intact soil deposits were present along the levee, the landform was investigated with three shovel tests initially placed at 50-ft intervals along a single transect (1.1–1.3). These shovel tests all encountered varying layers of dense and extremely compact fill with gravel and cobbles to a depth of 3.0–3.3+ fbs. To verify whether the remaining portions of the levee exhibited similar characteristics of fill deposits, six additional shovel tests (1.4–1.9) were excavated at 100- to 200-ft intervals along the central and northern portions of the levee spine. Two shovel tests [REDACTED] produced a cut nail fragment and a whole machine-made brick from a fill layer, which were recorded as 18PRX284-4. Evidence of disturbance was noted in all of the remaining shovel tests excavated at 100- to 200-ft intervals, and no natural buried ground surface was encountered below the artificial levee in any of the shovel tests. Shovel tests along the levee displayed a highly variable stratigraphic profile because of the disturbed nature of the artificial landform, as characterized by shovel test 1.5, which contained a Stratum I (0–0.35 fbs) of very dark grayish brown (10YR 3/2) sandy loam over a Stratum II (0.35–1.2 fbs) of pale brown (10YR 6/3) mottled with strong brown (7.5YR 4/6) sandy clay with cobbles. Stratum III (1.2–2.3 fbs) was a strong brown (7.5YR 4/6) coarse sand with cobbles mixed with white (10YR 8/1) clay. Stratum IV (2.3–2.7 fbs) was a light gray (10YR 7/2) gravelly sandy clay mixed with strong brown (7.5YR 5/6) gravelly sandy clay. Stratum V (2.7–3.3+ fbs) was a strong brown (7.5YR 5/6) sandy clay mixed with white (10YR 8/1) very compact clay with gravel and cobbles. According to the USDA NRCS (2020) data, the natural soil type in this area is Codorus and Hatboro soils (frequently flooded), which does not correspond to the man-made stratigraphy encountered in the shovel tests along the levee, confirming the artificial nature of this landform. Also, a sewer line has been placed at the base of the levee immediately to the east.

Due to the height of the artificial levee and the practical limitations of hand excavation, an undisturbed buried surface representing the original T1 terrace ground surface prior to construction of the levee in 1972 was not encountered. While intact Holocene age accretion deposits could not be reached below the levee during the Phase I survey, testing of adjacent areas of the floodplain was able to sample intact soils, and no significant archaeological resources were encountered. No further investigations are recommended in this portion of the survey area.

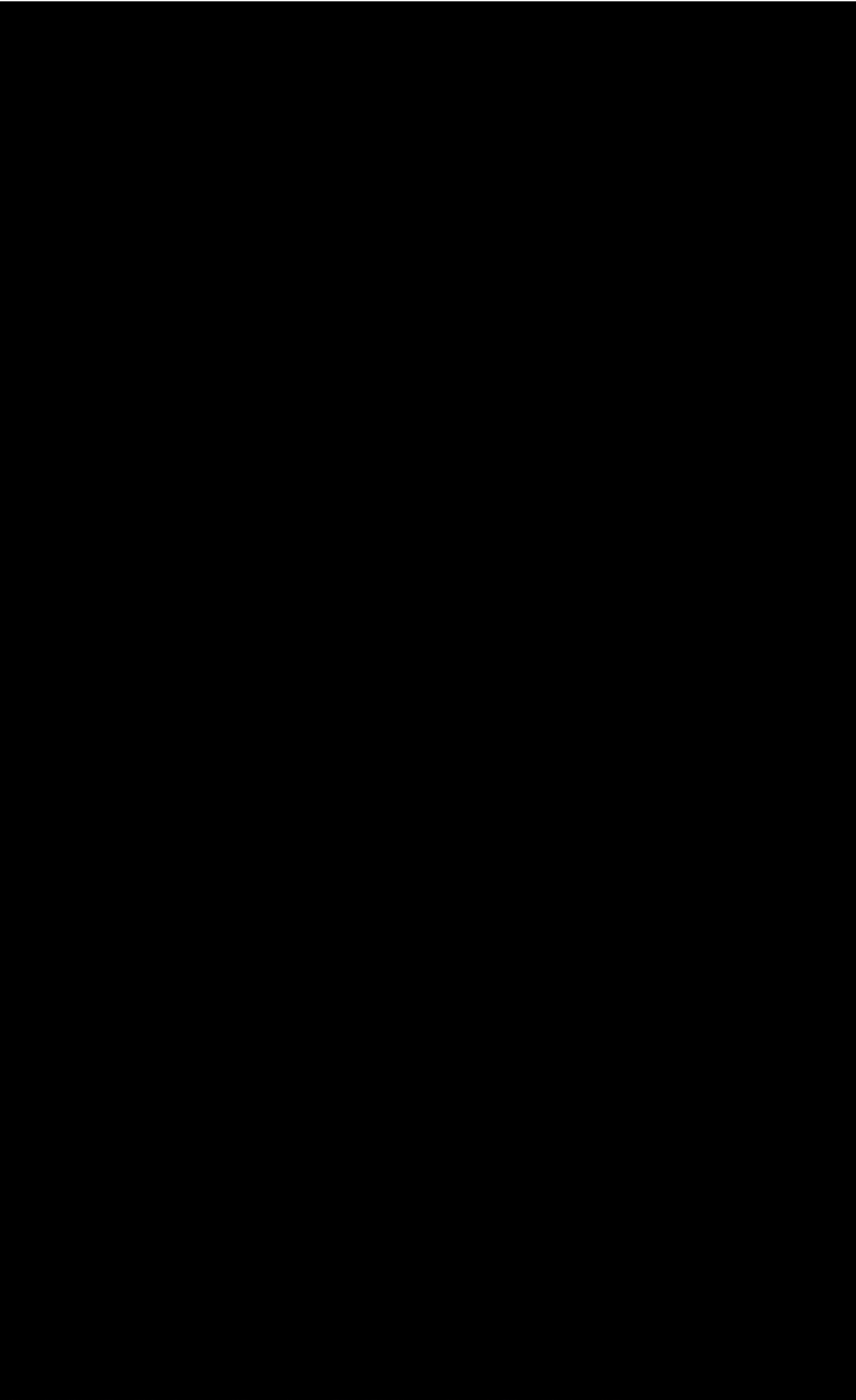


Figure 7.1. Paint Branch Archaeological Survey Areas within USDA [redacted] Property, Shovel Tests, and Resources.

This page intentionally left blank.



Figure 7.2. View of Agricultural Test Plot in Eastern Part of Paint Branch East, Facing North.



Figure 7.3. View of Agricultural Test Plot in Eastern Part of Paint Branch East, Facing East.



Figure 7.4. View of Levee in Eastern Part of Paint Branch East, Facing North.



Figure 7.5. View of Wet Area in Northeast Portion of Paint Branch East, Facing South.



Figure 7.6. View of Paint Branch along West Side of Paint Branch East, Facing North.

18PRX284-4

Two historic period artifacts were found in the fill deposits of two shovel tests (1.7 and 1.9) placed on the levee, and were together designated 18PRX284-4. Because of the obvious redeposited contexts of the cultural material, additional shovel tests were not excavated at closer intervals around the two shovel tests; however, nearby shovel tests excavated on grid produced no additional cultural material. Shovel test 1.7, which produced one cut nail fragment from Stratum III at 2.0 fbs, displayed four strata. The top stratum (0–0.4 fbs) was a fill layer of dark grayish brown (10YR 4/2) sandy loam with approximately 10 percent gravel; Stratum II was a fill layer (0.4–1.0 fbs) of yellowish brown (10YR 5/4) sand mottled with reddish yellow (5YR 6/6) sand with less than 5 percent gravel; Stratum III was a fill layer (1.0–3.1 fbs) of dark yellowish brown (10YR 4/4) gravelly sand with approximately 40 percent gravel and cobbles; and Stratum IV (3.1–3.7+ fbs) was yellowish brown (10YR 5/4) gravelly fine sand with approximately 30 percent gravel and cobbles. A whole brick was recovered from Stratum I (0.5 fbs) of shovel test 1.9. This shovel test contained a Stratum I (0–1.8 fbs) of dark yellowish brown (10YR 4/4) sandy loam, but a dense layer of cobbles encountered at 1.8 fbs prevented further excavation in this shovel test (Figure 7.7).

The cut nail and whole brick were found in disturbed and redeposited soil contexts and are associated with modern activity related to construction of the levee. These two historic artifacts do not represent an intact archaeological resource in this location and no further archaeological investigation of this area is recommended for this project as currently scoped.

T1 Terrace

The T1 terrace in the Paint Branch East section was investigated with two transects of shovel tests spaced at 50-ft intervals and oriented parallel to Paint Branch, beginning approximately 25 ft east of the sewer line located at the base of the levee and approximately 20 ft east of an 8-ft tall deer fence that surrounds the

agricultural field and test plots. A total of 23 shovel tests were placed along the westernmost transect (2.1–2.23), and 24 shovel tests were excavated along the easternmost transect (3.1–3.24). Stratigraphy encountered in this portion of the survey area varies somewhat, particularly with the lower soil horizons, but in general there is some consistency depending on which of the two USDA NRCS (2020) mapped soil profiles (Codorus or Hatboro soils) was encountered.



Figure 7.7. View of Shovel Test 1.9 Profile in Paint Branch East.

On the T1 terrace east of Paint Branch, sandy lateral accretion C horizon deposits commonly underly the fine silty and clayey vertical accretion Bt horizon deposits, but in a few instances, the lateral accretion C horizon is absent and the vertical accretion Bt horizon deposits are very thick and directly on top of bedload gravels and cobbles (cf. Figure 7.7). In general, the soil profile consisted of thick Ap/Bt1/Bt2 horizons overlying one or two gleyed Cg horizons (Cg1, Cg2). This profile sequence was best represented in shovel test 3.7, which displayed an Ap horizon (0–1.3 fbs) of grayish brown (10YR 5/2) silty clay loam overlying a gleyed Btg1 horizon (1.3–2.1 fbs) of light gray (10YR 7/2) silty clay with strong brown (7.5YR 5/6) silty clay mineral staining. Stratum III was a gleyed Btg2 horizon (2.1–2.4 fbs) of light brownish gray (10YR 6/2) sandy clay, and Stratum IV was a gleyed 2Cg horizon of bedload cobbles in a sandy matrix extending 2.4+ fbs. The presence of the gleyed B and C horizons indicates association with the Hatboro soil series.

A second soil profile observed on this landform is a variation of the Codorus soil series, which consisted of a thick plowzone (Ap horizon) overlying one or two cambic B horizons (Bw1, Bw2) that overlay one or two gleyed argillic Btg horizons (Btg1, Btg2) representing fine sand, silt, and clay vertical accretion back swamp deposits. This typical profile is best displayed in shovel test 3.15 and consists of an Ap horizon (0–1.1 fbs) of brown (10YR 4/3) sandy loam with some cobbles overlying a Bw1 horizon (1.1–1.6 fbs) of dark grayish brown (10YR 4/2) sandy loam. Stratum III was a Bw2 horizon (1.6–2.7 fbs) of yellowish brown

(10YR 5/4) sandy clay, and Stratum IV was a Btg horizon (2.7–3.1+ fbs) of gleyed light brownish gray (10YR 6/2) silty clay with strong brown (7.5YR 5/6) silty clay mineral staining (Figure 7.8).



Figure 7.8. View of Shovel Test 3.15 Profile in Paint Branch East.

Bedload basal gravels representing former channel deposits underly both of these profiles and were either encountered directly beneath the Btg or Cg horizons or the soil graded into one or more coarse to medium sand layers (C1, C2 horizons) directly over the stream cobbles. Usually the 2C horizon of bedload gravel and cobbles was encountered at a depth ranging from 3.1–3.9 fbs, but occasionally deposition of the gleyed Btg and Cg horizons was thicker, and hand augering did not encounter the bedload cobbles until about 4.1–4.7 fbs. The apparent ridge-and-swale topography of the T1 landform implied by the variable depth of the former channel deposits suggests that the lateral migration of Paint Branch may have been episodic.

The cambic B horizons (Bw1 and Bw2) encountered on the east side of the Paint Branch East section appears to have a high potential for burial of artifacts within likely terminal Pleistocene and Holocene age vertical accretion deposits. While a potential for deeply buried archaeological materials does not necessarily mean that artifacts actually will occur in these sediments, it does suggest that the conditions are favorable for such deposits. However, while there is a geomorphological potential for that area to contain intact deeply buried artifacts within the T1 terrace pre-contact age deposits, only one pre-contact isolated find occurrence (18PRX284-1) and one small pre-contact site (18PR1191) were identified in this portion of the survey areas during the shovel test investigations.

In contrast, the gleyed Btg and Cg horizon soils of the T1 terrace have low to no potential for buried intact pre-contact cultural material. The gleyed clayey and fine sand soils of the B and C horizons represented in the shovel tests indicate a wet, back swamp type of depositional environment that would not have been

suitable for human habitation. However, the back swamp environment could have been used for hunting and fishing by inhabitants living nearby.

18PRX284-1

Isolated find 18PRX284-1 is located [REDACTED] and is represented by two pieces of debitage: one jasper flake recovered from Stratum III (0.95–1.55 fbs) of shovel test 2.12 and one quartz flake recovered from Stratum I (0–1.0 fbs) of the shovel test located 50 ft to the east (N500 E550) (see Figure 7.1; Figure 7.9). The find was delineated by eight shovel tests excavated at 25-ft intervals in the four cardinal directions, and no additional artifacts were found (see Figure 7.1). A typical profile on this site involved an Ap horizon (0–1.2 fbs) of dark grayish brown (10YR 4/2) gravelly loam with approximately 30 percent gravel; a Bw1 horizon (1.2–1.95 fbs) of dark yellowish brown (10YR 4/4) sandy loam with approximately 5 percent gravel; a Bw2 horizon (1.95–2.4 fbs) of yellowish brown (10YR 5/4) sandy loam with approximately 5 percent gravel; a Bt horizon (2.4–2.8 fbs) of yellowish brown (10YR 5/6) silty clay loam with approximately 5 percent gravel; a C horizon (2.8–3.3 fbs) of yellowish brown (10YR 5/4) gravelly sand with approximately 20 percent gravel; and a 2C horizon (3.3+ fbs) of basal gravel and cobbles representing the former channel deposits. The soils encountered on this site are consistent with the Codorus series mapped for the area by the USDA NRCS (2020). These two flakes represent a low-density lithic scatter of unknown pre-contact age and do not represent a substantial archaeological resource. No further investigation is recommended for this area.



Figure 7.9. View of Resource 18PRX284-1, Facing North.

18PR1191

Site 18PR1191 is partially located [REDACTED] (see Figure 7.1; Figure 7.10). The site area was investigated through a combination of shovel tests and surface collection. Twelve shovel tests were excavated at 25-ft intervals across the site, and pre-contact artifacts were recovered from three of those (Figure 7.11).



Figure 7.10. View of Site 18PR1191, Facing South.

Two different stratigraphic sequences were observed in shovel tests on this site. One profile involved an Ap horizon (0–1.1 fbs) of brown (10YR 4/3) silt loam; a C1 horizon (1.1–1.7 fbs) of dark grayish brown (10YR 4/2) coarse sand with approximately 60 percent gravel; a C2 horizon (1.7–2.6 fbs) of yellowish brown (10YR 5/4) coarse sand with approximately 60 percent gravel; a C3 horizon (2.6–3.2+ fbs) of pale brown (10YR 6/3) coarse sand with less than 5 percent gravel; and a 2C horizon (3.2+ fbs) of stream bedload gravel and cobbles.

A second soil profile involved an Ap horizon (0–1.0 fbs) of dark yellowish brown (10YR 4/4) silty clay loam; a C1 horizon (1.0–2.3 fbs) of dark yellowish brown (10YR 3/6) coarse sandy loam; a Cg2 horizon (2.3–2.8 fbs) of grayish brown (10YR 5/2) sandy loam with yellowish brown (10YR 5/8) mineral staining; a Bt horizon (2.8–3.9 fbs) of gray (10YR 5/1) sandy clay; and a 2C horizon of bedload basal gravel and cobbles (3.9+ fbs).

In total, seven pre-contact artifacts were recovered from site 18PR1191 (Table 7.1). The assemblage consists of one late stage biface and six pieces of unmodified debitage. These include three pieces of quartzite and one piece of quartz debitage from Stratum I (Ap horizon, 0–1.0 fbs), two pieces of quartzite debitage from Stratum II (C1 horizon, 1.0–2.0 fbs), and one chert late stage biface fragment from Stratum III (C2 horizon, 1.7–2.6 fbs) (Figure 7.12). None of the pre-contact period artifacts is diagnostic of a specific time period.

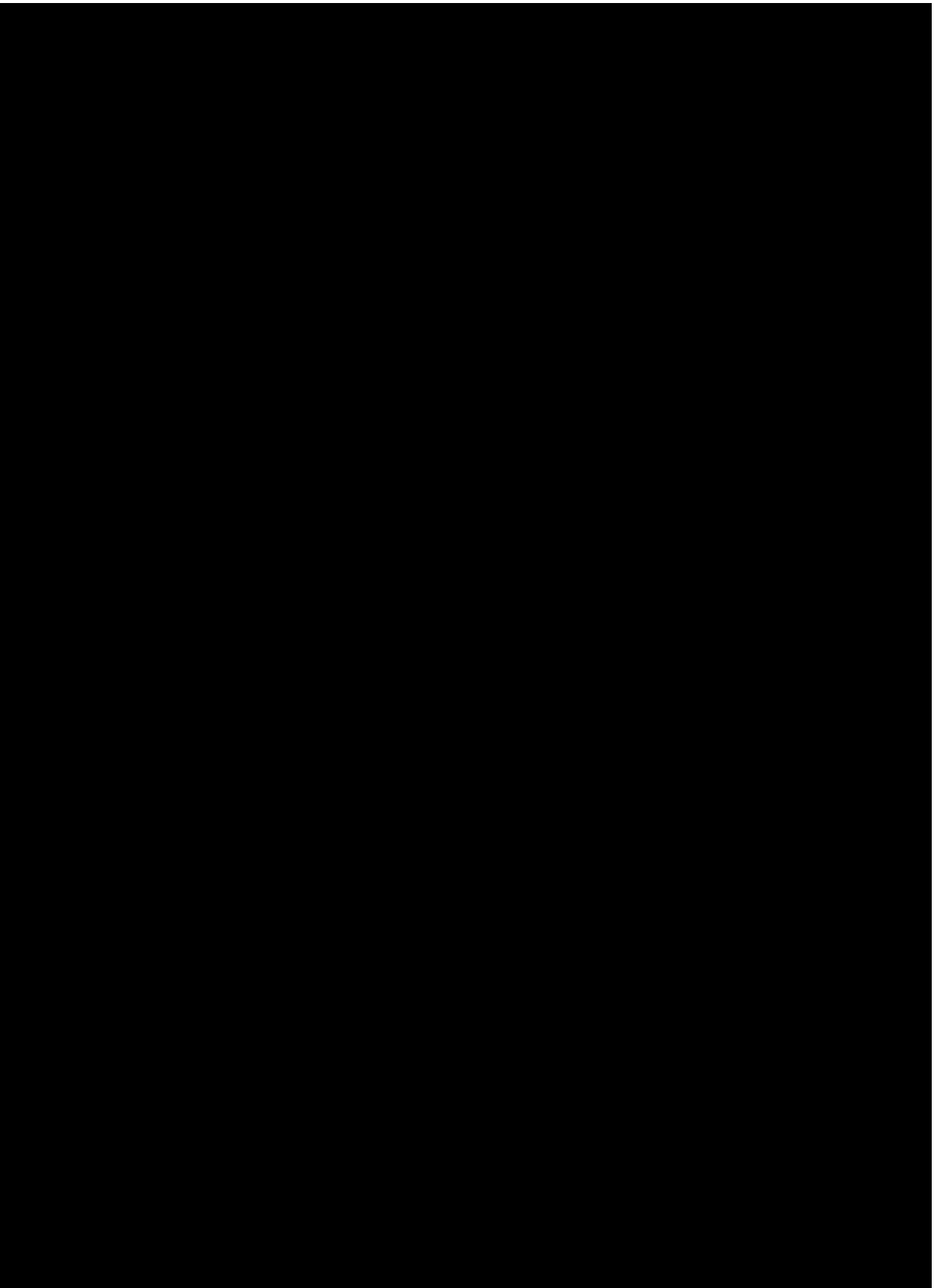


Figure 7.11. Map of Site 18PR1191.

Table 7.1. Artifacts from Site 18PR1191 by Horizon.

Functional Group	Artifact Type	Horizon				Total
		Ap	C1	C2	C3/Bt	
Tool	Biface, Late Stage, Rhyolite			1		1
Debitage	Shatter, Quartzite	3	2			5
	Shatter, Quartz	1				1
Total		4	2	1	0	7

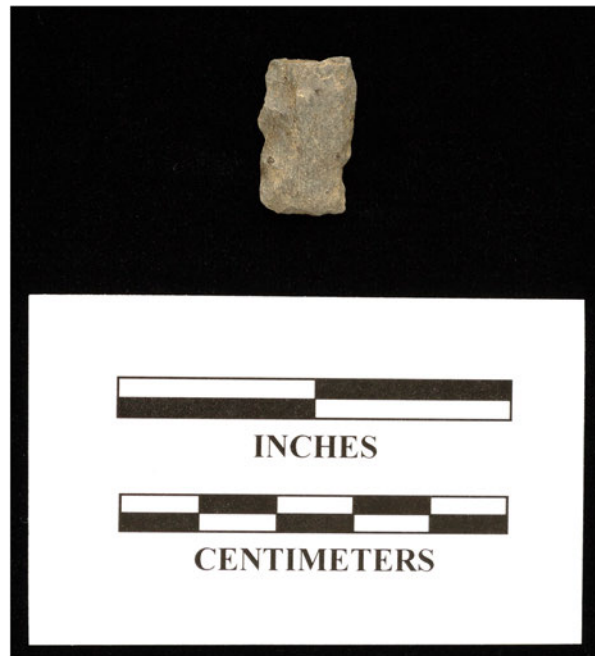


Figure 7.12. Biface Fragment from Site 18PR1191.

Although three pre-contact artifacts were found in the C1 and C2 horizons and may be in undisturbed and intact contexts in this area, the pre-contact component on the site is characterized by an extremely low density. The Phase I survey results indicate that site 18PR1191 does not contain substantial artifact deposits or cultural features that could provide additional data regarding the pre-contact period occupation of this area. Based on the results of the survey, site 18PR1191 is recommended not eligible for the NRHP, and no further archaeological investigation of this site is recommended for this project as currently scoped.

T2 Terrace

In addition to the levee and the T1 terrace along Paint Branch, shovel tests were excavated in the northeastern portion of the Paint Branch East survey area, along the T2 scarp and drainage ditch/channelized stream (see Figure 7.1). A total of 13 shovel tests were excavated along three transects placed at 50-ft intervals, none of which yielded cultural material.

Stratigraphy encountered in this area varied somewhat, but essentially displayed either an Ap/C or an Ap/Bw/Btg/C horizon sequence and was generally consistent with the two USDA NRCS soil profiles (Codorus or Hatboro soils) mapped in this area. The general solum as displayed in shovel test 4.2 was composed of an Ap horizon (0–0.7 fbs) of dark grayish brown (10YR 4/2) gravelly silt loam with approximately 40 percent gravel over a C1 horizon (0.7–1.1 fbs) of light yellowish brown (10YR 6/4) gravelly sandy loam with approximately 40 percent gravel. Stratum III (1.1–1.5 fbs) was a C2 horizon of

yellowish brown (10YR 5/4) gravelly sandy clay loam with approximately 40 percent gravel over a Cg3 horizon (1.5–2.0+ fbs) of gray (10YR 6/1) gleyed sand with approximately 40 percent gravel mottled with yellowish brown (10YR 5/8) iron oxide staining.

An alternate soil sequence was displayed in shovel test 6.2 that consisted of an Ap horizon (0–0.9 fbs) of dark grayish brown (10YR 4/2) silt loam; a Bw horizon (0.9–1.4 fbs) of brown (10YR 4/3) silt loam; a Btg1 horizon (1.4–1.95 fbs) of gray (10YR 5/1) gleyed silty clay loam mottled with yellowish brown (10YR 5/8) iron oxide staining; a Btg2 horizon (1.95–2.3 fbs) of gray (10YR 6/1) gleyed silty clay; and a Btg3 horizon (2.3–3.3+ fbs) of gray (10YR 5/1) gleyed silty clay mottled with heavy yellowish brown (10YR 5/8) iron oxide staining.

PAINT BRANCH WEST SECTION (AN-6 AND EASTERN END OF AN-7)

The Paint Branch West section contains part of the AN-6 and the eastern end of the AN-7 stream mitigation sites and is located south of I-495 and immediately west of Paint Branch (see Figure 7.1). This section is a rectangular shaped area measuring between 140 and 150 ft wide and approximately 1,230 ft long parallel to Paint Branch. Similar to the topography east of the drainage, the west side of Paint Branch is characterized by a levee adjacent to the west bank of Paint Branch and a T1 terrace adjacent to the west of the levee. A T2 terrace rises farther to the west, along the north side of Tributary 1 and partially within the project LOD. A moderate sized unnamed stream (Tributary 1) flows from the west and empties into Paint Branch, running through the southern portion of this section. The portion of the section south of Tributary 1 is situated in an agricultural field that was fallow at the time of the survey, and the northern portion is located partially in a pasture and partially in an agricultural field that had been harvested of soybeans at the time of the survey (Figures 7.13–7.14).



Figure 7.13. View of Fallow Field South of Tributary 1 in Paint Branch West, Facing North.



Figure 7.14. View of Pasture Area North of Tributary 1 in Paint Branch West, Facing North.

The entire Paint Branch West section is mapped by the USDA NRCS (2020) as poorly drained Codorus and Hatboro soils, frequently flooded. Prior to this study, previously recorded site 18PR111, as mapped by the MHT, was located on the T2 terrace to the west of the LOD (see Figure 7.1). In total, 54 shovel tests were excavated along two transects across the T1 terrace during the survey in this section and one isolated find (18PRX284-5) was identified. As the artificial levee on the east side of Paint Branch was determined to consist of fill deposits and due to the extreme difficulty excavating through the dense fill deposits, no attempt was made to excavate shovel tests along the artificial levee on the west side of Paint Branch. Shovel tests were also not excavated within the steeply sloped and disturbed northern portion of this survey area along the interstate road embankment.

T1 Terrace

The T1 terrace within the Paint Branch West survey area was investigated with two shovel test transects starting at the base of the levee and spaced at 50-ft intervals. Two transects were completed on the stream terrace located on the south side of unnamed Tributary 1 and two transects were completed on the portion of the T1 terrace located on the north side of Tributary 1 (see Figure 7.1). Soils in this area were consistent with the stratigraphy encountered on the east side of Paint Branch and typically involved either an Ap/Bw/Cg horizon sequence directly over a 2Cg horizon of bedload basal gravel and cobbles in a sandy matrix or an Ap/Bw/C1/C2/Btg/C3 horizon sequence directly over a 2Cg horizon of bedload basal gravel and cobbles in a sandy matrix. As seen east of Paint Branch, the underlying stratigraphy of the T1 terrace is characterized by an undulating ridge-and-swale topography and, as a result, the top of former Pleistocene channel deposits of Paint Branch was encountered at variable depths across this landform.

The Ap/Bw/Cg profile sequence was best represented in shovel test 4.5, which displayed an Ap horizon (0–0.9 fbs) of yellowish brown (10YR 5/4) sandy loam overlying a Bw1 horizon (0.9–1.4 fbs) of yellowish brown (10YR 5/8) sandy clay loam. Stratum III was a Bw2 horizon (1.4–2.0 fbs) of brown (10YR 4/3)

sandy clay loam, and Stratum IV was a gleyed Cg1 horizon (2.0–3.0 fbs) of pale brown (10YR 6/3) fine to medium sand. Beneath this was a gleyed Cg2 horizon (3.0–3.4 fbs) of grayish brown (10YR 5/2) fine to medium sand with strong brown (7.5YR 5/6) sand iron oxide mineral staining and a gleyed Cg3 horizon (3.4–4.8 fbs) of gray (10YR 6/1) fine to medium sand that was only encountered by hand-augering. A 2C horizon of bedload gravel and cobbles in a coarse sandy matrix extended below 4.8 fbs.

The Ap/Bw/C1/C2/Btg/C3 solum is best displayed in shovel test 1.5 and consisted of an Ap horizon (0–0.7 fbs) of brown (7.5YR 4/3) sandy loam overlying a Bw horizon (0.7–1.8 fbs) of brown (7.5YR 4/4) sandy loam (Figure 7.15). Stratum III was a C1 horizon (1.8–3.15 fbs) of light yellowish brown (10YR 6/4) sandy loam, and Stratum IV was a C2 horizon (3.15–3.5 fbs) of yellowish red (5YR 5/8) sand mottled with yellowish red (5YR 4/6) sand that was only encountered in a hand auger. Stratum V was a gleyed Btg horizon (3.5–3.65 fbs) of gray (10YR 5/1) silty clay, and Stratum VI was a C3 horizon (3.65–3.9 fbs) of very pale brown (10YR 7/3) sand. The hand auger could not penetrate the dense rocks below 3.9 fbs, indicating the presence of gravel and cobbles beginning at this depth, representing the 2C horizon of former channel deposits.



Figure 7.15. View of Shovel Test 1.5 in Paint Branch West (note bottom portion is auger only).

An alternative Ap/Bw1/C1/Bwg2/Bwg3/Bwg4/Cg2/Cg3 solum is best displayed in shovel test 8.7 and consisted of an Ap horizon (0–1.1 fbs) of brown (7.5YR 4/3) silt loam overlying a Bw1 horizon (1.1–1.6 fbs) of brown (7.5YR 5/4) sandy loam. Stratum III was a C1 horizon (1.6–2.3 fbs) of light brown (7.5YR 6/4) sand with 70 percent gravel, and Stratum IV was a gleyed Bwg2 horizon (2.3–3.8 fbs) of brown (7.5YR 5/2) fine sandy loam. Stratum V was a gleyed Bwg3 horizon (3.8–4.5 fbs) of dark gray (7.5YR 4/1) fine sandy loam that was only encountered in a hand auger, and Stratum VI was a Bwg4 horizon (4.5–5.0 fbs) of dark brown (7.5YR 3/2) fine sandy loam. Stratum VII was a Cg2 horizon (5.0–5.4 fbs) of very dark gray (7.5YR 3/1) medium sand, and Stratum VIII was a Cg3 horizon (5.4–5.5+ fbs) of gray (7.5YR 5/1) coarse sand with 30 percent pea gravel. The hand auger could not penetrate below 5.5 fbs, strongly suggesting the presence of gravel and cobbles beginning at this depth, representing the 2C horizon of former channel deposits.

A few shovel tests located at the base of the artificial levee encountered a layer of dense cobble and gravel fill overlying the natural soil column seen elsewhere in this portion of the survey area. A typical profile that includes this upper fill disturbance is best represented in shovel test 4.8, where six strata were encountered. These include an Ap horizon (0–0.3 fbs) of yellowish brown (10YR 5/4) sandy loam; a fill layer (0.3–1.4 fbs) of yellowish brown (10YR 5/4) sandy clay loam mottled with yellowish brown (10YR 5/8) clay inclusions; a Bw1 horizon (1.4–2.3 fbs) of brown (10YR 5/3) sandy clay loam; and a Bw2 horizon (2.3–3.2 fbs) of grayish brown (10YR 5/2) silty clay mottled with strong brown (7.5YR 4/6) silty clay. Two additional soil layers were encountered during hand augering at the base of excavation. These include a gleyed Cg horizon (3.2–3.9 fbs) of grayish brown (10YR 5/2) sand and a 2C horizon (3.9+ fbs) of gray (10YR 6/1) coarse sand with gravel and cobbles that represents the ancestral Paint Branch bedload.

Geoarchaeologically, the entire vertical accretion alluvium that predates the historic period (Bw and C horizons underlying the Ap horizon) within the T1 terrace appears to offer a potential for intact buried cultural material. Specifically, these sediments generally extend from 0.7–3.5 fbs and have a potential to contain archaeological resources during the early through late Holocene periods (Early Archaic through the Late Woodland periods). However, other than a single isolated pre-contact period artifact found in redeposited fill (18PRX284-5, see below), no cultural features, artifacts, or other indications of possible human activity were observed during the shovel test excavations of the T1 terrace. The shovel test excavations gave no indication that significant or intact archaeological sites are present within this portion of the survey area, and no additional investigations are recommended within the Paint Branch West section.

18PRX284-5

Isolated artifact occurrence 18PRX284-5 is located near the confluence of Paint Branch and Tributary 1 north of the tributary on a T1 terrace adjacent to a man-made levee (see Figure 7.1). The area immediately along the tributary to the south is within a moderately dense hardwood forest; the areas to the west and east are in open grass; and the area to the north is in an active agricultural field. One schist tertiary complete flake was found in redeposited fill (0.3–0.95 fbs) in shovel test 6.17 (N500 E500). Fill soil was recovered in three of the shovel tests excavated on the site. Shovel test 6.17 contained three strata—the top stratum (0–0.3 fbs) was a dark yellowish brown (10YR 3/6) sandy loam Ap horizon; Stratum II (0.3–0.95 fbs) was a fill layer of dark yellowish brown (10YR 4/6) and yellowish red (5YR 4/6) sandy clay loam; and Stratum III (0.95–2.0+ fbs) was a brown (10YR 4/3) sandy loam C1 horizon. In contrast, an undisturbed soil profile was only recorded at N525 E500. This shovel test contained an Ap horizon (0–0.9 fbs) of dark yellowish brown (10YR 4/4) silt loam mottled with strong brown (7.5YR 4/6) and light brownish gray (10YR 6/2) silt loam; a Bt1 horizon (0.9–2.2 fbs) of brown (10YR 5/3) sandy loam; a Btg2 horizon (2.2–3.4 fbs) of gray (10YR 5/1) clay loam with redox staining; a Btg3 horizon (3.4–4.4 fbs) of light gray (10YR 7/1) clay loam with redox staining; a Cg horizon (4.4–5.2 fbs) of light gray (10YR 7/1) coarse sand that was only encountered in a hand auger; and gravel and cobbles that were encountered at 5.2+ fbs. Isolated artifact occurrence 18PRX284-5 is bounded on the north, west, and east by negative shovel tests and on the south by unnamed Tributary 1. The pre-contact artifact recovered from 18PRX284-5 is not associated with intact and undisturbed deposits and does not represent a significant archaeological resource in this location. No further archaeological investigation of this area is recommended for this project.

TRIBUTARY 1 SECTION (AN-7 AND SOUTHERN END OF AN-6)

The Tributary 1 section is within a portion of the AN-7 and the southern end of the AN-6 stream mitigation sites and is located immediately west of the southern end of the Paint Branch West section and includes area within 100 ft of Tributary 1 on both sides of the drainage (see Figure 7.1). The area extends approximately 1,175 ft along the south side of Tributary 1 and approximately 1,150 ft along the north side of the stream and is approximately 200 ft in width. A gravel access road runs through the eastern portion of this section. The area east of that road and south of Tributary 1 is within an open grassland and agricultural field, and the area west of that road and south of Tributary 1 is within a moderately dense mixed hardwood forest with moderately dense groundcover. The area north of Tributary 1 (on both sides of the road) is within an open grassland and agricultural field (Figures 7.16–7.17). Prior to this study, previously recorded site 18PR111, as mapped by the MHT, was located [REDACTED] (see Figure 7.1).

Tributary 1 is a somewhat narrow stream, varying between 15 and 25 ft wide, with the stream bed composed of a high density of large cobbles and boulders (Figure 7.18). A bank cut of the stream, and later confirmed by shovel tests, indicates a very rocky subsoil overlying gleyed deposits on top of the stream bedload (Figure 7.19). Topographically, this survey area crosses T1 and T2 terraces for the full extent of the north side of the tributary and all of the eastern portion on the south side of the tributary. On the south side of the tributary, the western portion along the bank is characterized by a narrow T2 terrace with several small back swamp channels from past overbank episodes (Figure 7.20). Farther back from the stream bank and the edge of the T2 landform, the western portion of the project LOD south of the unnamed tributary encompasses the toe slope of a ridge that rises to the southwest. The side slope is generally a shallow slope but becomes considerably steeper in the far western portion of the survey area (Figures 7.16 and 7.21).



Figure 7.16. View of Tributary 1 Section, Facing West.



Figure 7.17. View of Tributary 1 Section, Facing East.



Figure 7.18. View of Tributary 1, Facing East.



Figure 7.19. View of Tributary 1 Bank Cut, Facing North.



Figure 7.20. View of Terrace and Tributary 1, Facing West.



Figure 7.21. View of Ridge Slope South of Tributary 1, Facing South.

A majority of this survey area is mapped by the USDA NRCS (2020) as Russett-Christiana complex soils (0 to 2% slopes). The far western end of the Tributary 1 section, immediately south of the I-495 corridor, has been disturbed by interstate highway construction and is mapped as Udorthents, highway (0 to 65% slopes). The far eastern end of this area is mapped as Codorus and Hatboro soils (frequently flooded). The boundary of previously recorded site 18PR111 is located [REDACTED]

Initially, 22 shovel tests were excavated along a single transect placed [REDACTED]. 23 shovel tests were excavated along a single transect [REDACTED]. 16 shovel tests were excavated along a single transect placed [REDACTED]; and 14 shovel tests were excavated along a parallel transect located [REDACTED] (see Figure 7.1). Thirteen of those 75 shovel tests yielded cultural material associated with sites 18PR111 and 18PR1192 and isolated finds 18PRX284-2, 18PRX284-3, and 18PRX284-6. An additional 25 shovel tests were excavated to further delineate and investigate those resources. In addition, the portion of the LOD adjacent to the MHT mapped location of 18PR111 was examined by surface inspection and six shovel tests were excavated outside the LOD in that area.

Shovel tests placed along the two transects closest to the south and north stream banks encountered similar stratigraphy, involving substantial and dense redeposited gravel and cobbles extending to at least 1.5 fbs, and in some locations, deeper than 2.5 fbs. For the most part, shovel tests [REDACTED], other than those associated with resource 18PRX284-6, contained an A horizon (0–0.5 fbs) of brown (10YR 4/3) very gravelly sand; a fill layer (0.5–1.4 fbs) of light yellowish brown (10YR 6/4) very gravelly sand; a Cg horizon (1.4–2.7 fbs) of dark gray (10YR 4/1) very gravelly coarse sand; and a Cg2 horizon (2.7–3.3 fbs) of gray (10YR 6/1) very gravelly sand. A 2C horizon of bedload gravel and cobbles in a coarse sandy matrix extends below 3.3 fbs. An alternate profile of the apparent redeposited fill layer or flood deposits located on the north side of Tributary 1 involved an Ap horizon (0–0.8 fbs) of brown (10YR 4/3) silt loam;

a fill layer (0.8–1.2 fbs) of yellowish brown (10YR 5/4) very gravelly sandy loam; a second fill layer (1.2–2.0 fbs) of light yellowish brown (10YR 6/4) very gravelly sand; and a Bt1 horizon (2.0–3.0 fbs) of yellowish brown (10YR 5/6) sandy loam. Hand augering extended this soil profile to include a Btg2 horizon (3.0–3.5 fbs) of yellowish brown (10YR 5/4) heavily oxidized sandy loam; a Btg3 horizon (3.5–3.8 fbs) of dark grayish brown (10YR 4/2) heavily oxidized sandy loam; and a Cg horizon (3.8–4.2+ fbs) of grayish brown (10YR 5/2) heavily oxidized gravelly sand.

Stratigraphy encountered in the shovel tests placed north and south of the tributary in the eastern portion of this section roughly corresponds to the Codorus and Hatboro soils, the natural soil type mapped in this area. Similar to the stratigraphy displayed in the Paint Branch West section, the profile encountered in shovel test 5.1 was composed of an Ap horizon (0–1.0 fbs) of brown (10YR 4/3) silt loam; a Bw horizon (1.0–2.15 fbs) of brown (10YR 5/3) silt loam mottled with dark yellowish brown (10YR 4/6) silt loam; a gleyed Btg horizon (2.15–4.3 fbs) of dark gray (2.5Y 4/1) sandy clay loam; and a gleyed Cg horizon (4.3–4.5 fbs) of black (2.5Y 2.5/1) sand. The profile was extended by hand augering down to the bedload stratum of cobbles and coarse gravel at 4.5 fbs.

In areas farther back from the stream bank, on the side slope and undisturbed portions of the T2 terrace on the south side of the tributary and on the T2 terrace on the north side of the tributary, soils within shovel tests were more characteristic of the Russett-Christiana complex soils (USDA NRCS 2020). Specifically, the shovel tests with a series of brownish yellow and yellowish brown Bt horizon subsoil strata are characteristic of the Russett soils. Strong brown, reddish yellow, and red Bt horizon subsoil strata more characteristic of the Christiana soils were not observed during the shovel testing in the Tributary 1 section.

The Russett soil series profile is represented in shovel test 5.5, which displayed an Ap horizon (0–0.35 fbs) of dark grayish brown (10YR 4/2) compact silt loam over a Bt1 horizon (0.35–1.2 fbs) of yellowish brown (10YR 5/4) compact silt loam with some gravel. Stratum III (1.2–1.8 fbs) was a Bt2 horizon of yellowish brown (10YR 5/8) compact silt loam with some gravel. An alternate soil profile was represented in shovel test 5.16, which involved an A horizon (0–0.4 fbs) of very dark brown (10YR 2/2) sandy loam; a Bt1 horizon (0.4–0.8 fbs) of dark yellowish brown (10YR 4/6) sandy loam with some gravel; a Bt2 horizon (0.8–2.1 fbs) of yellowish brown (10YR 5/4) compact sandy clay loam with gravel; and a Btg horizon (2.1–2.7+ fbs) of light yellowish brown (10YR 6/4) sandy clay loam. Another alternate soil profile was represented in shovel test 7.7 and is characterized by an A horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam; a Bt1 horizon (0.9–1.5 fbs) of brownish yellow (10YR 6/8) silty clay loam with some gravel; a Bt2 horizon (1.5–3.0 fbs) of grayish brown (10YR 5/2) compact silty clay with reddish yellow (7.5YR 6/8) mineral staining; and a C horizon (3.0–3.5+ fbs) of dark yellowish brown (10YR 4/4) mottled with grayish brown (10YR 5/2) very coarse sand with 50 percent gravel that was only encountered in an auger test.

18PR111

Previously recorded archaeological site 18PR111, or the A.R.C. Site, was identified in 1973 during a survey for the USDA South Research Area as a pre-contact short-term resource procurement and lithic quarry/extraction site identified by a small (50 × 70 ft) concentration of lithic artifacts all recovered during a surface collection (Clark 1973). Despite the apparent high density of pre-contact artifacts on the surface at the time the site was recorded, only two tools were found—one quartzite biface tip and one quartz biface fragment (Clark 1973). According to Clark (1973), the site was situated “

Based on Clark’s (1973) description of the artifact distribution, it appears that site 18PR111

(see Figure 7.1). The site is situated within two fallow agricultural fields that had been recently harvested of soybeans at the time of the MLS project survey; (Figures 7.22–7.23).



Figure 7.22. View of Site 18PR111, Facing Southwest.



Figure 7.23. View of Site 18PR111, Facing East.

During a walkover inspection of the MHT mapped site area [REDACTED], one quartzite flake and one rhyolite flake were recovered from the ground surface of 18PR111, which displayed

approximately 50 percent surface visibility at the time of the survey. An additional one historic and 19 pre-contact artifacts were recovered from fill and the Ap (Stratum I, 0–0.9 fbs), Ab (Stratum VI, 1.5–1.8 fbs), and Bw (Strata II and III, 0.9–2.9 fbs) horizons in five shovel tests located to the southeast of the previously mapped location of this site, and that area was included in a revised boundary for this site at the request of the MHT (Jenny Cosham, personal communication 2020) (Figure 7.24). In total, 26 shovel tests were excavated within the revised boundary of site 18PR111, including six excavated outside the project LOD within the previously mapped boundary of the site. One Bristol-type stoneware sherd and two quartz flakes were found in a fill layer in shovel test N500 E450; one FCR, one quartz core, and 12 pieces of rhyolite, quartzite, and quartz debitage were recovered from three different horizons to a depth of 2.9 fbs in shovel test N500 E500; shovel test N500 E600 produced one quartz flake fragment from the Ap horizon (0–0.75 fbs); shovel test N500 E525 yielded one quartz biface fragment from the Ap2 horizon (0.9–1.2 fbs); and shovel test N475 E500 yielded one quartzite flake fragment from the Ab2 horizon (1.5–1.8 fbs). No artifacts were found in the remainder of the shovel tests on this site, including the six excavated within the previously recorded boundary of the site. Stratigraphy was highly variable across the site and several different stratigraphic sequences were observed in shovel tests on this site.

One sequence was encountered at N500 E525 and involved an Ap1 horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam; an Ap2 horizon (0.9–1.2 fbs) of dark brown (10YR 3/3) silt loam; a Bw1 horizon (1.2–1.5 fbs) of dark yellowish brown (10YR 4/4) silt loam; a Bw2 horizon (1.5–2.0 fbs) of brown (10YR 4/3) silt loam; a gleyed Bwg3 horizon (2.0–2.5 fbs) of grayish brown (10YR 5/2) silt loam; and a C1 horizon (2.5–3.4 fbs) of grayish brown (10YR 5/2) sand. Augering extended this profile to include a gleyed Btg4 horizon (3.4–3.8 fbs) of gray (10YR 5/1) sandy clay with yellowish brown (10YR 5/8) mineral staining; a Cg2 horizon (3.8–4.2 fbs) of grayish brown (10YR 5/2) medium sand; a Cg3 horizon (4.2–6.3 fbs) of dark gray (10YR 4/1) coarse sand; and a 2C stratum of channel gravel and cobbles (6.3+ fbs).

Another sequence was encountered at N475 E500 and involved multiple incipient Ab horizons buried by flood deposits. This location displayed an Ap horizon (0–0.6 fbs) of yellowish brown (10YR 5/4) silt loam; a thin C1 horizon representing a flood episode (0.6–0.8 fbs) of brownish yellow (10YR 6/6) sandy loam; a B1 horizon (0.8–1.1 fbs) of pale brown (10YR 6/3) silt loam; an incipient buried Ab1 horizon (1.1–1.3 fbs) of dark brown (10YR 3/3) silt loam; a thin flood deposit C2 horizon (1.3–1.5 fbs) of brownish yellow (10YR 6/6) sandy loam; an incipient buried Ab2 horizon (1.5–1.8 fbs) of dark brown (10YR 3/3) silt loam; a Cg3 horizon (1.8–2.5 fbs) of light gray (10YR 7/1) fine sand; and an incipient buried Ab3 horizon (2.5–3.3 fbs) of dark yellowish brown (10YR 4/4) silt loam. While this shovel test is located near unnamed Tributary 1, none of the other nearby shovel tests displayed any buried soil horizons and it is uncertain why a series of three buried A horizons are found in a small, localized area. This shovel test produced only a single artifact—one large quartzite flake fragment from the Ab2 horizon.

One profile observed in shovel tests located on the T2 terrace involved an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam with 20 percent gravel; a Bt1 horizon (0.9–1.9 fbs) of yellowish brown (10YR 5/8) silty clay; a Bt2 horizon (1.9–3.0 fbs) of yellowish brown (10YR 5/4) clay loam with redox staining; a Bt3 horizon (3.0–3.2 fbs) of yellowish brown (10YR 5/6) clay loam with redox staining; and C horizon of gravel that was encountered at 3.2 fbs. The other profile encountered on the T2 terrace consisted of an Ap over C horizon stratigraphic sequence that involved an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam with 20 percent gravel; a C1 horizon (0.9–2.1 fbs) of yellowish brown (10YR 5/6) sand with 50 percent gravel and cobbles; and a C2 horizon (2.1–3.3+ fbs) of brownish yellow (10YR 6/8) sand with 50 percent gravel and cobbles.

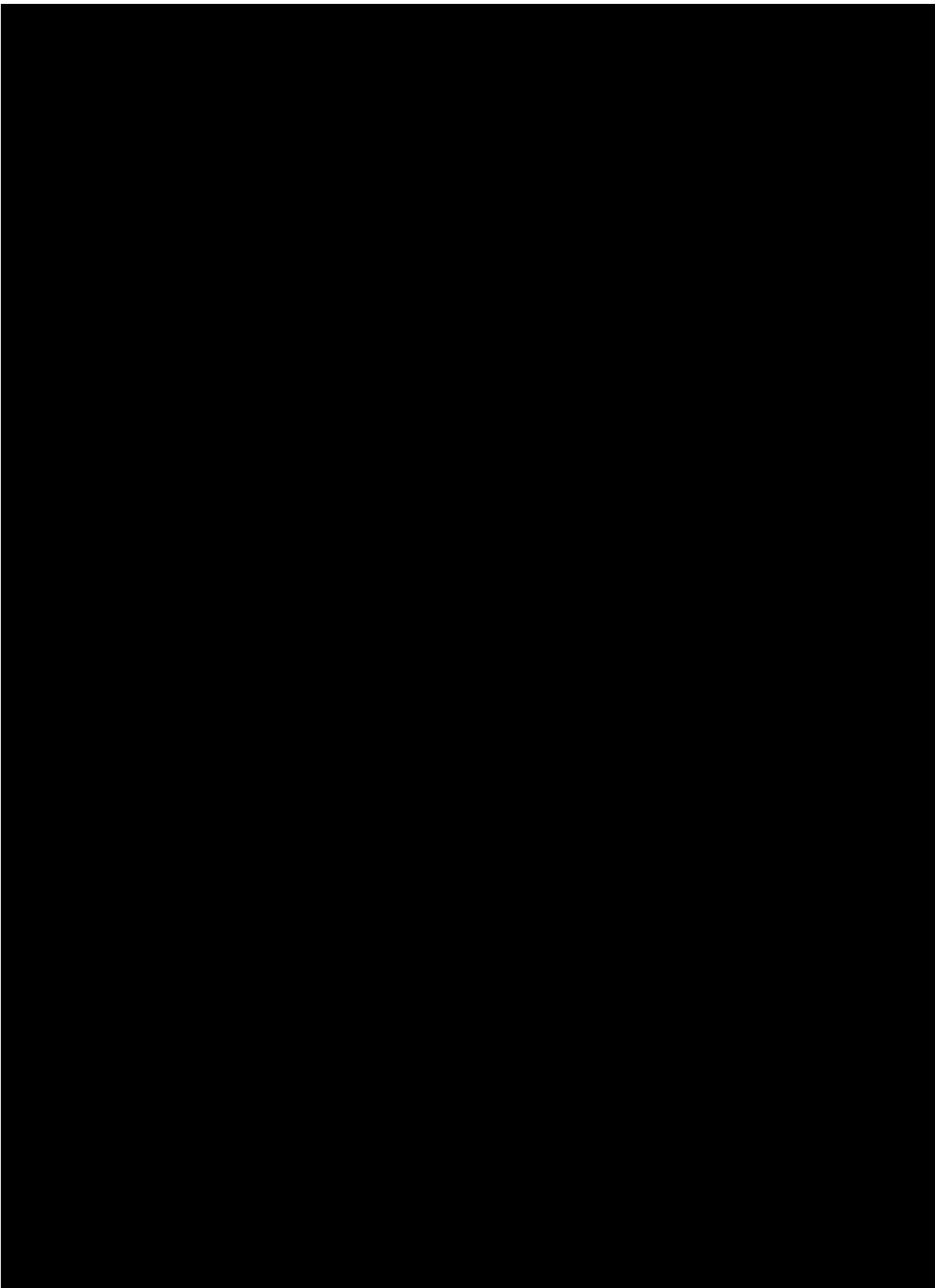


Figure 7.24. Map of Site 18PR111.

An anomalous profile encountered only in shovel test N500 E500 (ST 7.12) located [REDACTED] involved an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam, a Bw1 horizon (0.9–1.9 fbs) of yellowish brown (10YR 5/6) sandy loam, a Bw2 horizon (1.9–2.9 fbs) of dark yellowish brown (10YR 4/4) sandy loam, and a C horizon (2.9–3.3+ fbs) of yellowish brown (10YR 5/6) medium sand with 20 percent large cobbles. A very thin (1–2 cm) lens of organic (but not burnt material) sandy loam was observed at 1.1 fbs within the Bw1 horizon in this shovel test (Figure 7.25). No artifacts were found in this lens and it is not clear if it represents the remnants of an older A horizon or is associated with disturbance from the nearby farm roads, but it does not appear to represent a cultural feature. The lens was not observed anywhere else in the survey area.



Figure 7.25. View of Dark Lens in N500 E500 at Site 18PR111, Facing North.

The project pre-contact assemblage associated with site 18PR111 consists of one rhyolite and one quartzite flake recovered from the surface; two quartz flakes recovered from a fill layer; one quartz biface fragment, one quartz core fragment, one quartzite FCR, two quartzite flakes, one piece of quartz shatter, one quartz flake, and one rhyolite flake recovered from the Ap horizon; one quartzite flake found in the Ab2 horizon; one quartz, two quartzite, and three rhyolite flakes found in the Bw1 horizon; and two rhyolite flakes found in the Bw2 horizon (Table 7.2). Fourteen of the 21 pre-contact period artifacts, including the core and the FCR, were recovered from N500 E500 (ST 7.12), although almost half of these ($n=6$) were found in the disturbed plowzone (Figure 7.26). Only four of the other 25 shovel tests excavated across the site produced cultural material, and with the exception of the two pre-contact artifacts found in a fill layer, each of these produced only a single artifact. Although nine of the 21 pre-contact period artifacts were recovered from the potentially undisturbed Ab2 (Stratum VI), Bw1 (Stratum II), and Bw2 (Stratum III) horizons, these are all non-diagnostic pieces of debitage, and the site artifacts in general are very lightly and widely distributed vertically, offering no suggestion of any specific concentration areas within a particular stratum. The pre-contact period artifacts from 18PR111 are likely associated with multiple visits to the area for resource procurement purposes, probably occurring during multiple pre-contact periods.

Table 7.2. Artifacts from Site 18PR111 by Horizon.

Functional Group	Artifact Type	Horizon						Total
		Surf.	Fill	Ap	Bw1	Bw2	Ab2	
Tool	Biface Fragment, Quartz			1				1
Debitage	Core Fragment, Quartz			1				1
	Flake Fragment, Quartz		2	1	1			4
	Flake Fragment, Quartzite			1	2		1	4
	Flake Fragment, Rhyolite	1		1	3	2		7
	Flake Broken, Quartzite			1				1
	Flake Complete, Quartzite	1						1
	Shatter, Quartz			1				1
	Fire Cracked Rock, Quartzite			1				1
Other Lithic	Fire Cracked Rock, Quartzite			1				1
Kitchen	Bristol Stoneware, Undecorated		1					1
Total		2	3	8	6	2	1	22

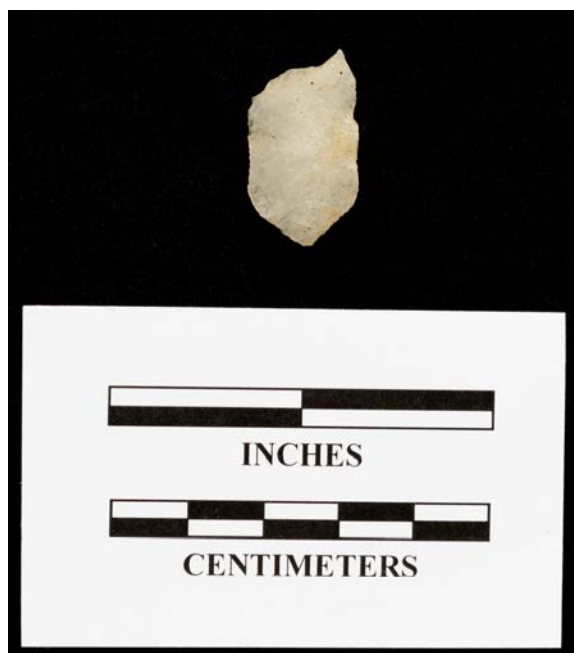


Figure 7.26. Biface Fragment from Site 18PR111.

The single historic period artifact found on 18PR111 during the project survey is an undecorated Bristol glazed stoneware sherd recovered from fill deposits in a shovel test located along the farm road. It is likely associated with the documented 19th through early 20th century use of the area but is not associated with a significant historic resource in this area.

Although the former boundary of previously recorded site 18PR111 did not extend into the project LOD, project results indicate that the boundary of this site should be revised to extend to [REDACTED]. The revised site boundary is defined to the south, west, and east by negative shovel tests and Tributary 1, but the site extends [REDACTED] well outside of the project LOD and no investigation was conducted in that area. This broadly dispersed (vertically and horizontally) and low-density scatter of lithic materials is likely associated with resource procurement activities conducted during multiple pre-contact periods. As the majority of the site is located outside the project LOD and most of that area was not investigated, this project has not tried to evaluate the NRHP eligibility of this site. However, investigations do not indicate that resources within the project LOD contain

substantial intact deposits or cultural features that could provide new or important information regarding the pre-contact or historic period occupations of this area. No further archaeological investigation of this site is recommended for this project as scoped.

18PR1192

Site 18PR1192 was identified on [REDACTED]

[REDACTED], and comprises eight pieces of debitage from two shovel tests (see Figure 7.1). The site is within a moderately dense hardwood forest with moderately dense undergrowth (Figure 7.27). One piece of quartz tertiary shatter was found in Stratum II (0.55–1.5 fbs) of shovel test 5.10 (Figure 7.28). One shovel test placed 25 ft to the west yielded one quartzite tertiary flake fragment from Stratum II (0.55–1.0 fbs) and five quartzite tertiary flake fragments and one piece of quartzite shatter from Stratum III (1.0–1.7 fbs). Two shovel tests excavated at 25-ft intervals to the east along this transect did not contain any cultural material, nor did the two placed at 25-ft intervals to the north and south.

Shovel test 5.10 contained five strata, including an Ap horizon (0–0.55 fbs) of very dark grayish brown (10YR 3/2) sandy loam; a Bt1 horizon (0.55–1.5 fbs) of yellowish brown (10YR 5/4) sandy loam; a Bt2 horizon (1.5–1.85 fbs) of pale brown (10YR 6/3) sandy loam; a Bt3 horizon (1.85–2.35 fbs) of light brownish gray (10YR 6/2) sandy loam mottled with brownish yellow (10YR 6/8) sandy loam; and a gleyed Btg horizon (2.35–2.6 fbs) of gray (10YR 6/1) silt loam. As mapped by the USDA NRCS (2020), this stratigraphic profile roughly corresponds to the Russett soils of the Russett-Christiana complex soil series that are mapped as the natural soil type in this area.



Figure 7.27. View of Site 18PR1192, Facing North.

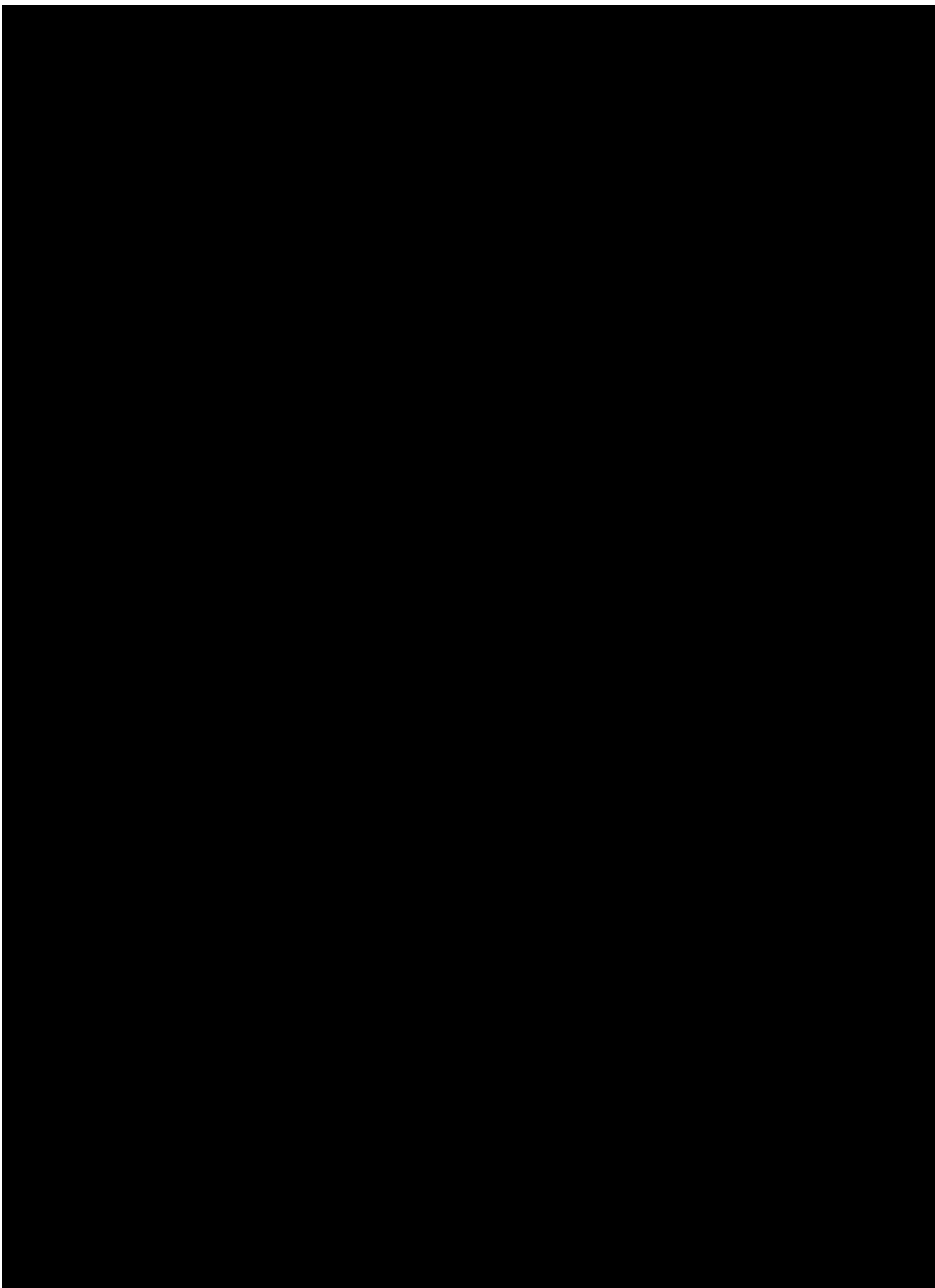


Figure 7.28. Map of Site 18PR1192.

The site assemblage consists of a total of eight unmodified pieces of lithic debitage recovered from two shovel tests located 25 ft apart. These consist of one quartzite flake and one piece of quartz shatter found in the Bt1 horizon (0.5–1.55 fbs) and one piece of quartz shatter and five quartzite flakes found in the Bt2 horizon (1.0–1.7 fbs) (Table 7.3). No additional artifacts were found in the shovel tests excavated in this area, although isolated finds 18PRX284-2, 18PRX284-3, and 18PRX284-6 are located to the east, west, and north, respectively may have the potential to be associated with the same general resources procurement activities conducted across the area. No indications of any patterned or substantial artifact distributions or cultural features was observed on or near site 18PR1192. This low-density scatter of lithic materials dates to an undetermined pre-contact period (or periods) and does not appear to offer additional research potential. The site is recommended not eligible for the NRHP, and no further archaeological investigation of this site is recommended for this project as currently scoped.

Table 7.3. Artifacts from Site 18PR1192 by Horizon.

Functional Group	Artifact Type	Horizon		Total
		Bt1	Bt2	
Debitage	Flake Fragment, Quartzite	1	5	1
	Shatter, Quartzite		1	1
	Shatter, Quartz	1		<u>1</u>
Total		2	6	8

18PRX284-2

Low-density artifact scatter 18PRX284-2 was identified [REDACTED], which is approximately 65 ft to the north (see Figure 7.1). A gravel access road is located to the east. An active agricultural field is located immediately to the south, a moderately dense wooded area is located to the north along the stream bank, and open grassy areas are located to the west and east (Figure 7.29). One rhyolite tertiary complete flake was found in Stratum II (0.4–1.5 fbs) of shovel test 5.6 (Figure 7.30). A shovel test placed 25 ft to the west yielded one quartzite FCR from Stratum I (0–0.5 fbs). Two shovel tests excavated at 25-ft intervals to the east along this transect did not contain any cultural material, nor did the shovel tests placed 25 ft to the north and south.

Shovel test 5.6 contained four strata—the top stratum (0–0.4 fbs) was a brown (10YR 4/3) very compact silt loam Ap horizon; Stratum II (0.4–1.5 fbs) was a brownish yellow (10YR 6/6) very compact silt loam Bt1 horizon; Stratum III (1.5–2.6 fbs) was a yellowish brown (10YR 5/6) very compact silt loam Bt2 horizon; and Stratum IV (2.6–3.0 fbs) was a yellowish brown (10YR 5/8) very compact silt loam Bt3 horizon. As described by the USDA NRCS (2020), this stratigraphic profile roughly corresponds to the Russett soils of the Russett-Christiana complex soil series that are mapped as the natural soil type in this area.

Artifact scatter 18PRX284-2 is bounded on all sides by negative shovel tests. The single flake and FCR are likely associated with the pre-contact period activity evidenced across this area but do not appear to represent a substantial archaeological resource at this location. Further archaeological investigation of this area is unlikely to yield significant information regarding the pre-contact occupation of the area, and no further investigation of 18PRX284-2 is recommended for this project as scoped.



Figure 7.29. View of Resource 18PRX284-2, Facing South.

18PRX284-3

Low-density artifact scatter 18PRX284-3 was identified [REDACTED] which is approximately 65 ft to the north (see Figure 7.1; Figures 7.31 and 7.32). The resource is in a moderately dense hardwood forest with moderately dense undergrowth. One quartzite primary flake fragment was found in Stratum II (0.4–2.4 fbs) of shovel test 5.14. A shovel test placed 25 ft to the north yielded one quartzite tertiary flake fragment from Stratum III (2.3 fbs). Four shovel tests excavated at 25-ft intervals to the east and west along this transect did not contain any cultural material, nor did the shovel test placed 25 ft to the south.

Shovel test 5.14 contained three strata—the top stratum (0–0.4 fbs) was a very dark brown (10YR 2/2) sandy loam A horizon; Stratum II (0.4–2.4 fbs) was a brownish yellow (10YR 6/6) sandy clay loam Bt1 horizon; and Stratum III (2.4–3.4+ fbs) was a yellowish brown (10YR 5/6) silty clay loam Bt2 horizon. As described by the USDA NRCS (2020), this stratigraphic profile roughly corresponds to the Russett soils of the Russett-Christiana complex soil series that are mapped in this area.

Isolated artifact occurrence 18PRX284-3 is bounded to the north, south, west, and east by negative shovel tests. The two flakes constitute a localized low-density scatter of non-diagnostic lithic material that does not represent a substantial or significant archaeological resource. No further archaeological investigation of this area is recommended for this project as currently scoped.

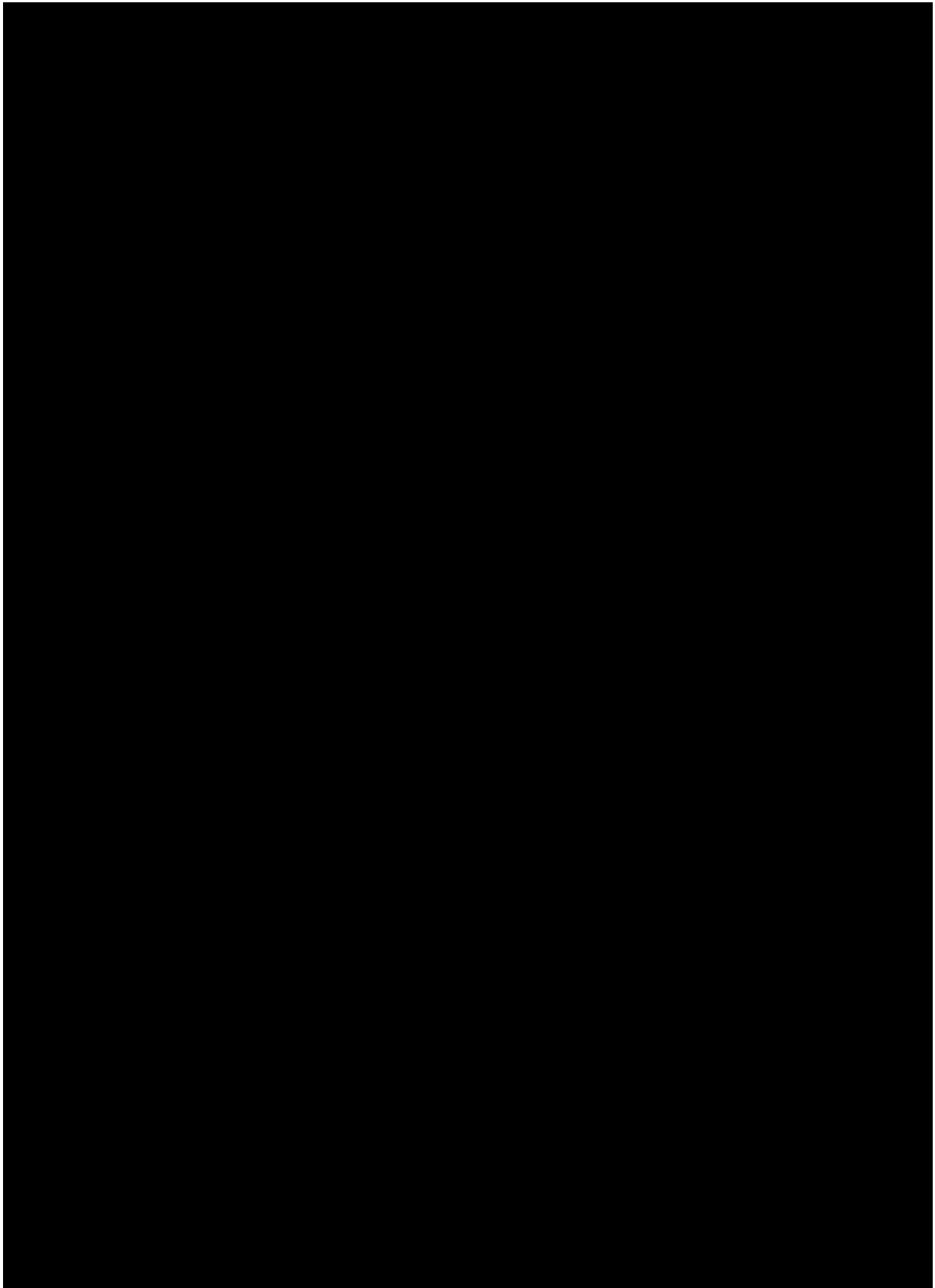


Figure 7.30. Map of Resource 18PRX284-2.

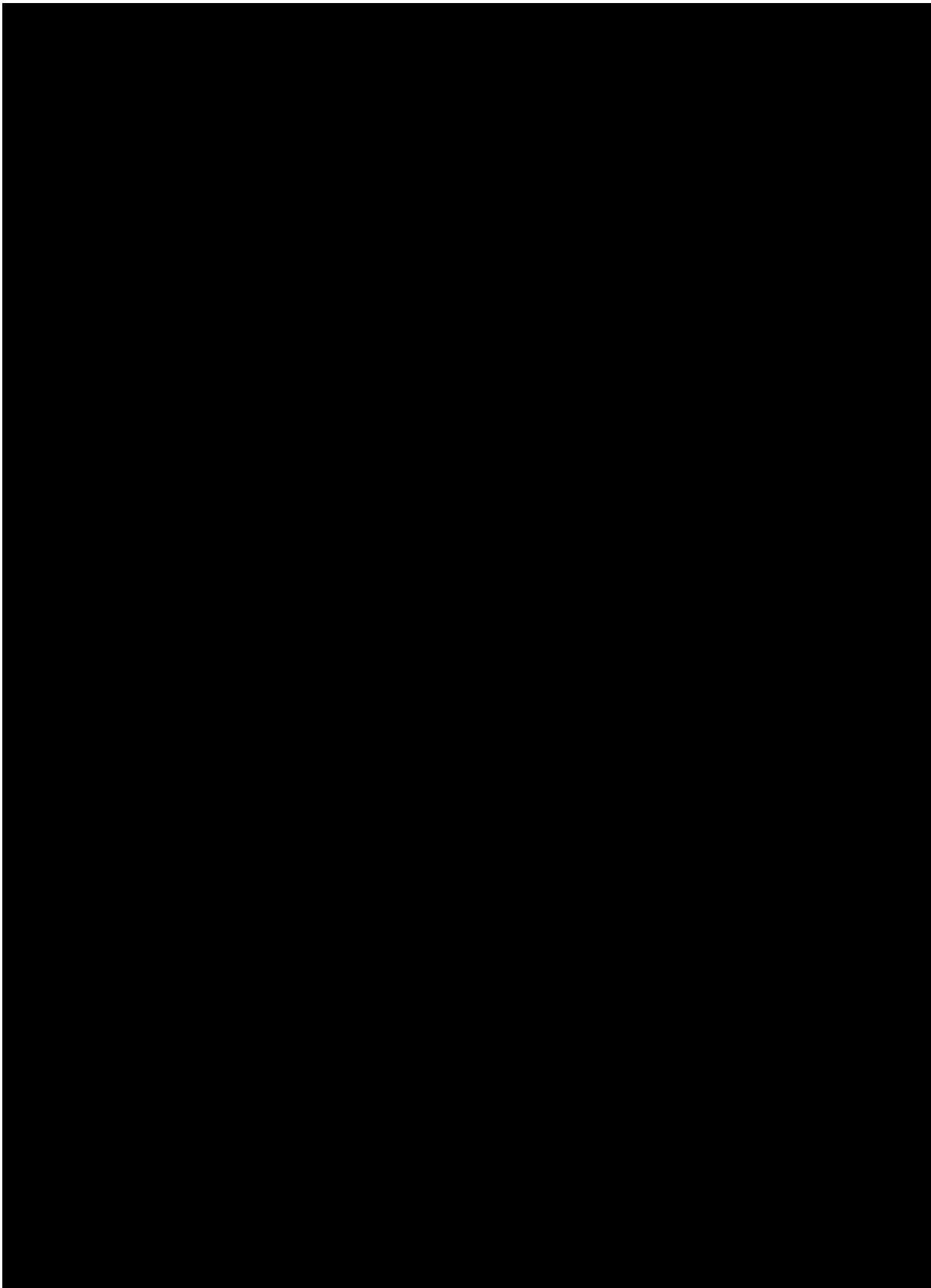


Figure 7.31. Map of Resource 18PRX284-3.



Figure 7.32. View of Resource 18PRX284-3, Facing North.

18PRX284-6

Resource 18PRX284-6 is located [REDACTED] a moderately dense hardwood forest with light to moderately dense groundcover (see Figure 7.1). Some evidence of fill disturbance or flood deposits was noted in all 19 of the shovel tests excavated on the transect closest to the [REDACTED]. Seven of the shovel tests in this area produced pre-contact and/or historic artifacts. Because the material was recovered from redeposited fill or flood deposit contexts, these artifacts were grouped together as single non-site/isolated find resource (18PRX284-6) and were separated from nearby archaeological site 18PR1192 and scatters 18PRX284-2 and 18PRX284-3, which were recorded within areas of intact soils. The assemblage consists of 12 historic period artifacts (five pieces of colorless container glass, five pieces of green container glass, one piece of light green container glass, one piece of solidified tar), along with seven pre-contact artifacts (one quartz biface fragment, four pieces of quartz and quartzite debitage, one quartzite core, and one quartzite FCR). The artifacts were recovered from Strata I–III to a depth of 2.3 fbs, and historic artifacts were mixed with the pre-contact artifacts in all three strata.

A typical profile in this area was encountered in shovel test 3.13 and consisted of an A horizon (0–0.5 fbs) of very dark grayish brown (10YR 3/2) gravelly sandy loam; a fill layer (0.5–1.6 fbs) of yellowish brown (10YR 5/4) gravelly sandy loam; a fill layer (1.6–3.3 fbs) of light brownish gray (10YR 6/2) sandy loam; and a C3 horizon (3.3–3.6+ fbs) of gray (10YR 6/1) gravelly sandy loam. An alternate profile with variations in color and depth was observed in shovel test 3.15 and consisted of an A horizon (0–0.9 fbs) of brown (10YR 4/3) gravelly sandy loam; a fill layer (0.9–1.6 fbs) of dark yellowish brown (10YR 4/6) gravelly sandy loam; a fill layer (1.6–2.3 fbs) of light yellowish brown (10YR 6/4) mottled with yellowish brown (10YR 5/6) gravelly sandy loam; a C3 horizon (2.3–2.8 fbs) of strong brown (7.5YR 5/8) gravelly sandy loam; and a C4 horizon (2.8–3.5+ fbs) of brownish yellow (10YR 6/6) mottled with yellow (10YR 7/6) gravelly sandy loam with large cobbles.

The pre-contact and historic artifacts recovered from 18PRX284-6 are not associated with intact and undisturbed deposits and do not represent a significant archaeological resource in this location. No further archaeological investigation of this area is recommended for this project as currently scoped.

TRIBUTARY 2 SECTION (AN-7)

The Tributary 2 section is within the AN-7 stream mitigation site and involves a roughly oval shaped area bordered by Paint Branch to the northeast and bisected into northern and southern segments by the unnamed stream (Tributary 2) (see Figure 7.1). A gravel access road forms the southern border of the Tributary 2 section. The survey area is approximately 185 ft long (north-south) by 70–130 ft wide (east-west). This portion of the Paint Branch survey area is primarily characterized by a floodplain (T0 terrace) in the northernmost portion; a T1 terrace in the central portion; a T2 terrace located in the far southeastern portion; and a ridge nose in the western portion. The section is covered in light to moderately densely hardwood forest with moderate to dense undergrowth, except for the central portion of the section, which is open and covered in perennial grasses (Figures 7.33–7.34). Paint Branch runs along the northern edge of this area and is a broad stream approximately 10 m wide in this area (Figure 7.35). The unnamed tributary of Paint Branch (Tributary 2) runs through the central portion of the section. This stream originates southwest of the gravel road, varies from approximately 7–10 ft in width, and has a flow that is obstructed by a collapsed culvert (Figure 7.36).

The T0 landform bordering Paint Branch in the northeastern portion of this section is mapped by the USDA NRCS (2020) as poorly drained Codorus and Hatboro soils (frequently flooded). The remaining portion of the Tributary 2 section is mapped as moderately well-drained Russett-Christian complex soils (2 to 5% slopes).



Figure 7.33. View of Tributary 2 Survey Area, Facing South.



Figure 7.34. View of Open Vegetation on T1 and T2 Terraces in Tributary 2 Survey Area, Facing East.



Figure 7.35. View of Tributary 2, Facing North.



Figure 7.36. View of Tributary 2 Culvert, Facing Northeast.

Previously recorded site 18PR113 is mapped [REDACTED] (see Figure 7.1). Site 18PR113 was recorded by Clark (1973) as a short-term resource procurement site dating to an unknown pre-contact period. The site produced quartzite, rhyolite, and quartz debitage, a biface fragment, and FCR. As mapped by the MHT, the site [REDACTED] although the sketch map included with the original site form provided by the MHT indicates that the site is located [REDACTED]. Shovel tests that were excavated in the area where 18PR113 is mapped produced no cultural material. However, two of the nine shovel tests excavated [REDACTED] where the site is shown on the original site form) along three transects spaced at 50-ft intervals produced artifacts. Site 18PR113 was relocated [REDACTED], and one new pre-contact period site (18PR1190) was recorded in the survey area [REDACTED] (see Figure 7.1).

T0 Terrace

The T0 terrace (floodplain) is situated in the northernmost portion of the Tributary 2 section, extending from the west bank of Paint Branch southward for approximately 90 ft [REDACTED]. The upper A and B soil horizons on the floodplain have been scoured away by historic period flooding episodes, leaving a thin A horizon over a dense cobble and gravel C horizon extending at least 1.9 fbs. The floodplain was investigated with five shovel tests and, based on the stratigraphy observed in the shovel tests, there is no indication that deeply buried soils likely to contain significant archaeological resources are present on this landform. Stratum I generally consisted of a C horizon (0–1.5 fbs) of yellowish brown (10YR 5/6) very gravelly silt loam with approximately 60 percent large cobbles or an A horizon (0–0.17 fbs) of very dark grayish brown (10YR 3/2) gravelly sandy loam with approximately 30 percent gravel over a C horizon (0.17–1.9 fbs) of brown (10YR 4/3) gravelly sand with approximately 50 percent cobbles. Surface examination of eroded portions of the survey area revealed a dense concentration of gravel and small to large cobbles extending up to the surface of the present soil

column on the floodplain (Figure 7.37). No cultural material was recovered in the shovel tests excavated on the T0 terrace and no further archaeological investigation is recommended in this portion of the LOD for the project as scoped.



Figure 7.37. View of Eroded Surface on T0 Terrace of Tributary 2 Survey Area, Facing Northwest.

T1/T2 Terraces

The southern portion of the Tributary 2 section is characterized by a low T1 terrace that gradually rises to the east onto a T2 terrace outside of the survey area. Initially three shovel tests were excavated in the portion of the T1 terrace within the Tributary 2 LOD. Stratigraphy encountered on that landform varied somewhat, particularly with the lower soil horizons, but in general there is some consistency with the Russett component of the Russett-Christiana complex soils (2 to 5% slopes) that are mapped by the USDA NRCS (2020) in this area. In general, shovel tests indicated that the area is characterized stratigraphically by a plowzone (Ap horizon), a series of two or more argillic B horizons (Bt1, Bt2, Bt3, and Bt4), and a coarse sand C horizon overlying a 2C horizon of gravel bedload. One of the three shovel tests initially excavated across the small portion of the T1 landform within the project LOD identified previously recorded site 18PR113, which was further investigated with additional shovel tests and test units.

18PR113

Previously recorded site 18PR113, or the A.R.C. II Site, was identified in 1973 during a survey for the USDA South Research Area (Clark 1973). The site was recorded as a pre-contact short-term resource procurement site identified by a small (27 × 120 ft) scatter of lithic artifacts on the surface. The artifacts collected during that survey consist of 47 quartzite flakes, 21 quartz flakes, 59 rhyolite flakes, three FCR, one rhyolite retouched flake, and one rhyolite PPK fragment (Clark 1973). These artifacts were considered by Clark to be associated with general lithic reduction activity observed elsewhere in the Paint Branch watershed but not indicative of a substantial or long-term occupation at this location.

The project investigation included excavation of 18 shovel tests across this landform, extending well outside the project LOD, and pre-contact period artifacts were recovered from 15 of these (Figure 7.38). The revised site boundary is defined to the north by negative shovel tests and [REDACTED]. Because almost all shovel tests excavated in these areas contained artifacts, it is highly likely that the boundary of 18PR113 extends farther in these directions.

Site 18PR113 is located [REDACTED]

[REDACTED] (Figure 7.39). The shovel tests encountered a non-conformable sequence for the Bt horizons, which varied somewhat across the site, specifically with regard to the depth and composition. That is, the variations in composition suggest differences in intensity of deposition episodes, variations in color suggest differences in minerals and weathering, and variations in texture suggest differences in sorting during deposition, all indicating that the various Bt strata were deposited at different times and under different conditions. Most of the shovel tests in the survey area displayed an Ap and from two to four Bt horizons overlying a coarse sand C horizon and a 2C horizon of gravel bedload representing former channel deposits. A profile consisting of two argillic B horizons typically involved an Ap horizon (0–0.71 fbs) of brown (10YR 4/3) silt loam; a Bt1 horizon (0.71–3.1 fbs) of yellowish brown (10YR 5/6) silty clay loam; a Bt2 horizon (3.1–3.42 fbs) of yellowish brown (10YR 5/4) wet silty clay loam; and a C horizon (3.42–3.9+ fbs) of yellowish brown (10YR 5/6) coarse wet sand. Conversely, a shovel test profile consisting of three argillic B horizons typically involved an Ap horizon (0–0.5 fbs) of brown (10YR 4/3) silt loam; a Bt1 horizon (0.5–1.08 fbs) of brown (10YR 5/3) silt loam; a Bt2 horizon (1.08–1.67 fbs) of dark yellowish brown (10YR 3/4) silt loam; a Bt3 horizon (1.67–3.0 fbs) of yellowish brown (10YR 5/4) silt loam; and a Bt4 horizon (3.0–3.67+ fbs) of yellowish brown (10YR 5/6) clay loam.

Sixteen of the 21 shovel tests excavated across the site area produced a total of 120 pre-contact artifacts, consisting of 105 pieces of debitage, five cores, one biface fragment, one graver, one unclassified sherd, and seven quartzite FCR (Table 7.4). Four of the FCR were recovered from one shovel test, N500 E575, at a depth of 1.08–1.67 fbs from a dark layer that was observed in the wall of the entire shovel test. No further investigation of this apparent cultural feature was conducted because this portion of the site is located well outside the project LOD.

Pre-contact artifacts were found across the full extent of the site from east to west (E455 to E605) and north to south (N500 to N530), although generally in low numbers, with most shovel tests containing from one to three artifacts each. However, two distinct concentration areas were identified during the shovel testing. One is located at N515–530 E470–485, [REDACTED] and within the LOD, where the density ranged from 5–13 artifacts in three of the shovel tests in this area (see Figure 7.33). The second, and higher artifact density, is in the eastern portion of site 18PR113 (outside of the LOD) where the site extends [REDACTED]. This artifact concentration is located at N500 E575–605 where the shovel tests contained between 24 and 29 artifacts each (see Figure 7.33).

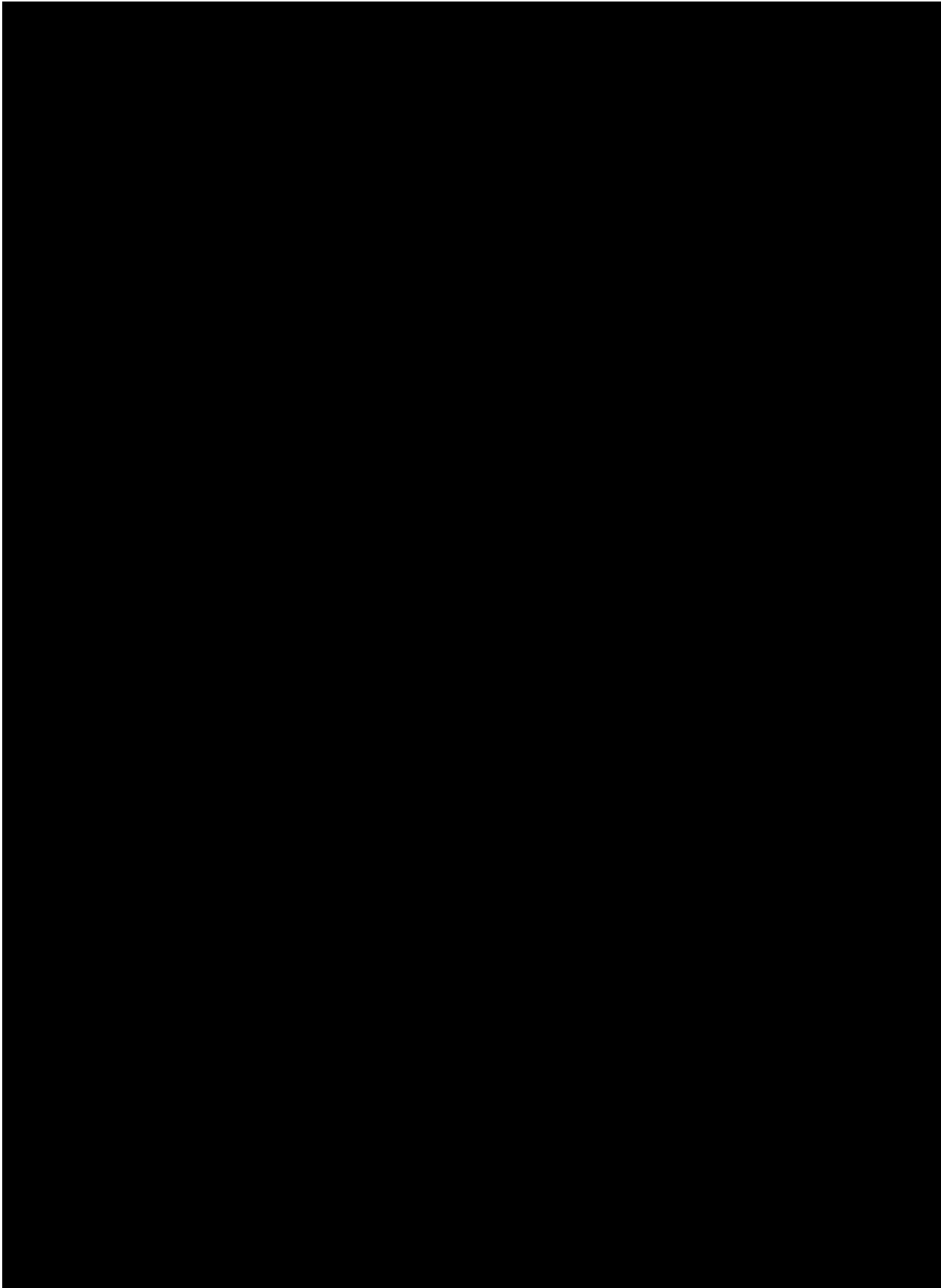


Figure 7.38. Map of Site 18PR113.



Figure 7.39. View of Site 18PR113, Facing North.

Table 7.4. Shovel Test Artifacts from Site 18PR113 by Horizon.

Artifact Type		Horizon				Total
		Ap	Bt1	Bt2	Bt3	
Tool	Late Stage Biface, Quartzite	1				1
	Graver, Quartz		1			1
Debitage	Core, Amorphous, Quartz		1			1
	Core, Amorphous, Quartzite				1	1
	Core, Exhausted, Quartzite	1	1			2
	Core, Fragment, Quartzite				1	1
	Flake, Broken, Quartz	1	5	1		7
	Flake, Broken, Quartzite	3	5	2	1	11
	Flake, Broken, Rhyolite	1	2		1	4
	Flake, Complete, Quartz		1			1
	Flake, Complete, Quartzite	1	4	1	1	7
	Flake, Fragment, Quartz	1	16	1	3	21
	Flake, Fragment, Quartzite	4	27	6	8	45
	Flake, Fragment, Rhyolite		1			1
	Shatter, Quartz	1	4	1		6
	Shatter, Quartzite		1	1		2
Other Lithic	Fire Cracked Rock, Quartzite	1	2	4		7
Ceramic	Unclassified Plain Sherd, Sand Temper		1			1
Total		15	72	17	16	120

A majority of the artifacts from the shovel tests were recovered from the intact Bt1 horizon ($n=72$), including the single unclassified sherd. The remainder of the artifacts were nearly equally recovered from the disturbed Ap horizon ($n=15$) and the intact and underlying Bt2 ($n=17$) and Bt3 horizons ($n=16$). Shovel test artifacts in the western part of the site and on the T1 landform were mainly recovered from the Bt2 and Bt3 horizons between 2.63 and 2.95 fbs and just above a C horizon of coarse sand. While no diagnostic artifacts were recovered in the lower Bt horizons, the deeper artifacts in the western portion of the site have some potential to represent Archaic deposits. In contrast, in shovel tests excavated farther to the east, artifacts gradually began occurring higher in the soil column moving away from the center of the T1 terrace and onto the T2 terrace. As the site ascends onto the T2 terrace, the cultural material appears to be mainly concentrated in the upper Ap and Bt1 horizons, with lesser densities of cultural material found in the lower (2.63–3.3 fbs) levels of the Bt2 and Bt3 horizons like the western side of the site. One sand tempered sherd recovered from the Bt1 horizon in the far eastern portion of 18PR113 suggests that the upper culture-bearing levels in this part of the site are associated with the Woodland period.

Following the shovel testing at 18PR113, two 5×5 ft test units were excavated in an attempt to gather larger artifact samples from the site and obtain additional information regarding site stratigraphy, the nature of the assemblage, and the potential for deeply buried artifacts. TU 1 was placed at N500 E534, in the eastern part of the site, to investigate the transition in artifact depths between the T1 and T2 terraces in this part of the site, and TU 2 was placed at N504 E494 in the western part of the site, within the LOD, to explore the deeper lithic deposits. Both test units were excavated in 0.25-ft levels, with cultural material recovered to depths of 1.7 fbs in TU 1 and 3.75 fbs in TU 2.

Test Unit 1. TU 1 was a 5×5 ft unit placed at the transition between the T1 and T2 terraces at N500 E534 (see Figure 7.38). Eight soil horizons were observed in TU 1 (Figure 7.40). Stratum Ia (0–0.35 fbs) was an Ap1 horizon of dark brown (10YR 3/3) silt loam; Stratum Ib (0.35–1.15 fbs) was an Ap2 horizon of dark yellowish brown (10YR 4/6) silt loam with 10–15 percent gravel that contained a plow scar that extended to 1.4 fbs at the stratum interface; Stratum II (1.15–1.95 fbs) overlapped in depth somewhat with Stratum Ib and was a Bt1 horizon of yellowish brown (10YR 5/8) sandy loam that produced no artifacts below 1.7 fbs; Stratum III (1.95–2.25 fbs) was a Bt2 horizon of yellowish brown (10YR 5/6) silty clay loam mottled with light yellowish brown (10YR 6/4) clay loam; Stratum IV (2.25–2.8 fbs) was a Btg3 horizon of grayish brown (10YR 5/2) silty clay loam mottled with strong brown (7.5YR 5/6) silty clay loam; Stratum V (2.25–2.55 fbs) occurred in the same levels as Stratum IV and was a Bt4 horizon of strong brown (7.5YR 5/8) sandy clay loam; Stratum VI (2.55–3.1 fbs) occurred in the same levels as Stratum IV and was a Bt5 horizon of yellowish brown (10YR 5/6) sandy clay loam; Stratum VII (2.8–3.45 fbs) occurred in the same level as Stratum IV and was a Bt6 horizon of strong brown (7.5YR 5/8) sandy clay loam mottled with yellowish brown (10YR 5/4) sandy clay loam, yellowish brown (10YR 5/8) sandy loam, and very dark grayish brown (10YR 3/2) sandy loam; and Stratum VIII (2.80–3.45+ fbs) was a C horizon of strong brown (7.5YR 5/8) sandy clay mottled with yellowish red (5YR 4/6) sandy loam and black (10YR 2/1) sandy loam. As illustrated in the west wall profile photograph, Strata V (Bt4) and VI (Bt5) likely represent a swale, and Stratum IV (Btg3 horizon) likely represents subsequent filling to create a former ridge. Consequently, the profile of the underlying subsurface at this location appears to be representative of a former ridge-and-swale topography that is characteristic of episodic lateral migration of Paint Branch.

The TU 1 assemblage consists of 181 artifacts collected from two soil horizons (Ap1/Ap2 and Bt1) between 0 and 1.7 fbs. TU 1 produced one quartz bipolar core, one quartz amorphous core, one quartz core fragment, two quartzite core fragments, 134 pieces of debitage, one quartz tested cobble, and 37 quartzite FCR. Four chipped stone tools were recovered and include one quartz mid stage biface fragment, one quartzite late stage biface fragment, one quartzite biface fragment, and one quartz retouched flake. The lithic debitage includes 43 quartz, 79 quartzite, and 12 rhyolite specimens.

The Ap1 horizon (0–0.35 fbs) was very shallow and produced only two flake fragments (Table 7.5). The older plowzone (Ap2 horizon, 0.35–1.4 fbs) yielded a relatively high density of material, including 125

pieces of debitage, five core/core fragments, one tested cobble, a retouched flake, three biface fragments, and 37 quartzite FCR. The Bt1 horizon (1.15–1.95 fbs) produced a very small number of artifacts that includes seven pieces of debitage recovered between 1.4 and 1.7 fbs. No artifacts were recovered below 1.7 fbs within the lower Bt and C horizons.



Figure 7.40. View of West Wall Profile of Test Unit 1 at Site 18PR113, Facing West.

Test Unit 2. TU 2 was a 5 × 5 ft unit placed on the T1 terrace at N504 E494 to help define activity areas and the vertical distribution of artifacts in the west-central portion of the site (see Figure 7.38). Six strata were observed in TU 2 (Figure 7.41). Stratum Ia (0–0.5 fbs) was an Ap1 horizon of brown (10YR 4/3) silt loam; Stratum Ib (0.5–0.8 fbs) was an Ap2 horizon of yellowish brown (10YR 5/4) silt loam; Stratum II (0.8–1.75 fbs) was a Bt1 horizon of yellowish brown (10YR 5/6) silt loam; Stratum III (1.75–3.0 fbs) was a Bt2 horizon of brownish yellow (10YR 6/6) sandy loam; Stratum IV (3.0–5.5 fbs) was a Bt3 horizon of yellowish brown (10YR 5/4) sandy clay loam that did not produce artifacts below 3.75 fbs; Stratum V (3.5–3.75 fbs) occurred in the same level as Stratum IV, was only present in the northern portion of the test unit, and was a Bt4 horizon of brownish yellow (10YR 6/8) sandy loam with dense gravel; and Stratum VI (5.5–6.3+ fbs) was only encountered in a hand auger and consisted of a gleyed Btg5 horizon of dark gray (2.5Y 4/1) fine sandy loam.

The TU 2 assemblage consists of 81 artifacts collected from four soil horizons from 0.5–3.75 fbs (Table 7.6). TU 2 produced five lithic tools, 58 pieces of debitage, one quartz amorphous core, two quartz core fragments, and 15 quartzite FCR. The lithic tools consist of one quartzite small triangular PPK base fragment, one quartzite hammerstone, one sandstone hammerstone/anvil, and one quartz and one quartzite retouched flakes. The debitage includes 27 quartz, 24 quartzite, and seven rhyolite specimens.

Table 7.5. Artifacts from Test Unit 1 at Site 18PR113 by Horizon.

Artifact Type		Horizon			Total
		Ap1	Ap2	Bt1	
Tool	Retouched Flake, Quartz		1		1
	Late Stage Biface, Quartzite		1		1
	Mid Stage Biface, Quartz		1		1
	Unclassified Biface, Quartzite		1		1
Debitage	Bipolar Core, Quartz		1		1
	Amorphous Core, Quartz		1		1
	Core Fragment, Quartz		1		1
	Core Fragment, Quartzite		2		2
	Complete Flake, Quartz		1		1
	Complete Flake, Quartzite		1		1
	Complete Flake, Rhyolite		1		1
	Broken Flake, Quartz		3	1	4
	Broken Flake, Quartzite		6	2	8
	Broken Flake, Rhyolite		2		2
	Flake Fragment, Quartz		23	1	24
	Flake Fragment, Quartzite	2	52	2	56
	Flake Fragment, Rhyolite		8	1	9
	Bipolar Flake, Quartz		1		1
	Shatter, Quartz		13		13
	Shatter, Quartzite		14		14
	Tested Cobble, Quartz		1		1
Other Lithic	Fire Cracked Rock, Quartzite		37		37
Totals		2	172	7	181



Figure 7.41. View of South Wall Profile of Test Unit 2 at Site 18PR113, Facing South.

Table 7.6. Artifacts from Test Unit 2 at Site 18PR113 by Horizon.

Artifact Type		Horizon				Total
		Ap2	Bt1	Bt2	Bt3	
Tool	Triangular PPK Base, Quartzite			1		1
	Retouched Flake, Quartz			1		1
	Retouched Flake, Quartzite		1			1
	Hammerstone/Anvil, Sandstone		1			1
	Hammerstone, Quartzite			1		1
Debitage	Amorphous Core, Quartz		1			1
	Core Fragment, Quartz		1	1		2
	Complete Flake, Quartz			1		1
	Broken Flake, Quartz	1	1			2
	Broken Flake, Quartzite		1			1
	Broken Flake, Rhyolite		1	1		2
	Flake Fragment, Quartz	2	2	10	2	16
	Flake Fragment, Quartzite	2	6	7	4	19
	Flake Fragment, Rhyolite		3		2	5
	Bipolar Flake, Quartzite		1			1
	Shatter, Quartz	1	3	4		8
	Shatter, Quartzite		2	1		3
Other Lithic	Fire Cracked Rock, Quartzite	4	6	5		15
Totals		10	30	33	8	81

No artifacts were recovered from the relatively thin modern Ap1 horizon (0.0–0.5 fbs) in TU 2, but the very thin Ap2 horizon (0.5–0.8 fbs) yielded four quartz and two quartzite flakes and four quartzite FCR. The much thicker Bt1 horizon (0.8–1.75 fbs) produced the second highest number of artifacts ($n=30$), including one sandstone hammerstone/anvil, one quartzite retouched flake, one quartz amorphous core, one quartz core fragment, 10 quartzite, six quartz, and four rhyolite flakes, and six quartzite FCR. The Bt2 horizon (1.75–3.0 fbs) yielded the highest number of artifacts ($n=33$), which include the quartzite triangular PPK base fragment, one quartz retouched flake, one quartzite hammerstone, one quartz core fragment, 15 quartz flakes, eight quartzite flakes, one rhyolite flake, and five quartzite FCR. The very thick Bt3 horizon (3.0–5.5 fbs) only contained eight artifacts, which include four quartzite, two quartz, and two rhyolite flakes.

The assemblage recovered from 18PR113 by the current project consists of a large number of flakes/shatter ($n=299$), as well as 56 FCR, one triangular PPK base fragment, a graver, four bifaces, two retouched flakes, 13 cores, two hammerstones, and one ceramic sherd (Figures 7.42–7.46). The triangular PPK base was not classified by type as the temporal affiliation of this point is not determined. It was found in the Bt2 horizon in the west-central portion of the site, so there is some potential for it to be a Late Archaic period triangular type similar to the Beekman Triangle and others found in the Northeast and upper Mid-Atlantic region in Late Archaic contexts (e.g., Ebright 1992, Luckenbach et al. 2010, Stewart 1998). The single unclassified sherd is tempered with sand but is small and was not formally typed (Figure 7.42a). The sherd was found in the Bt1 horizon in the eastern portion of the site. Although a little over half of the pieces of debitage are smaller than 2 cm, almost as many are larger, and all stages of lithic reduction appear to be well represented in the debitage category. Roughly two thirds of the debitage retains no cortex, but a third retains some cortex, strongly indicating that the initial material was in cobble form. Quartzite is by far the most well represented lithic material ($n=237$), quartz is the second most predominant lithic material ($n=119$), and 24 of the lithic artifacts are rhyolite. In general, the lithic material types appear to be similarly distributed across the site and within the horizons, with no evident horizontal or vertical patterns based on raw material type.

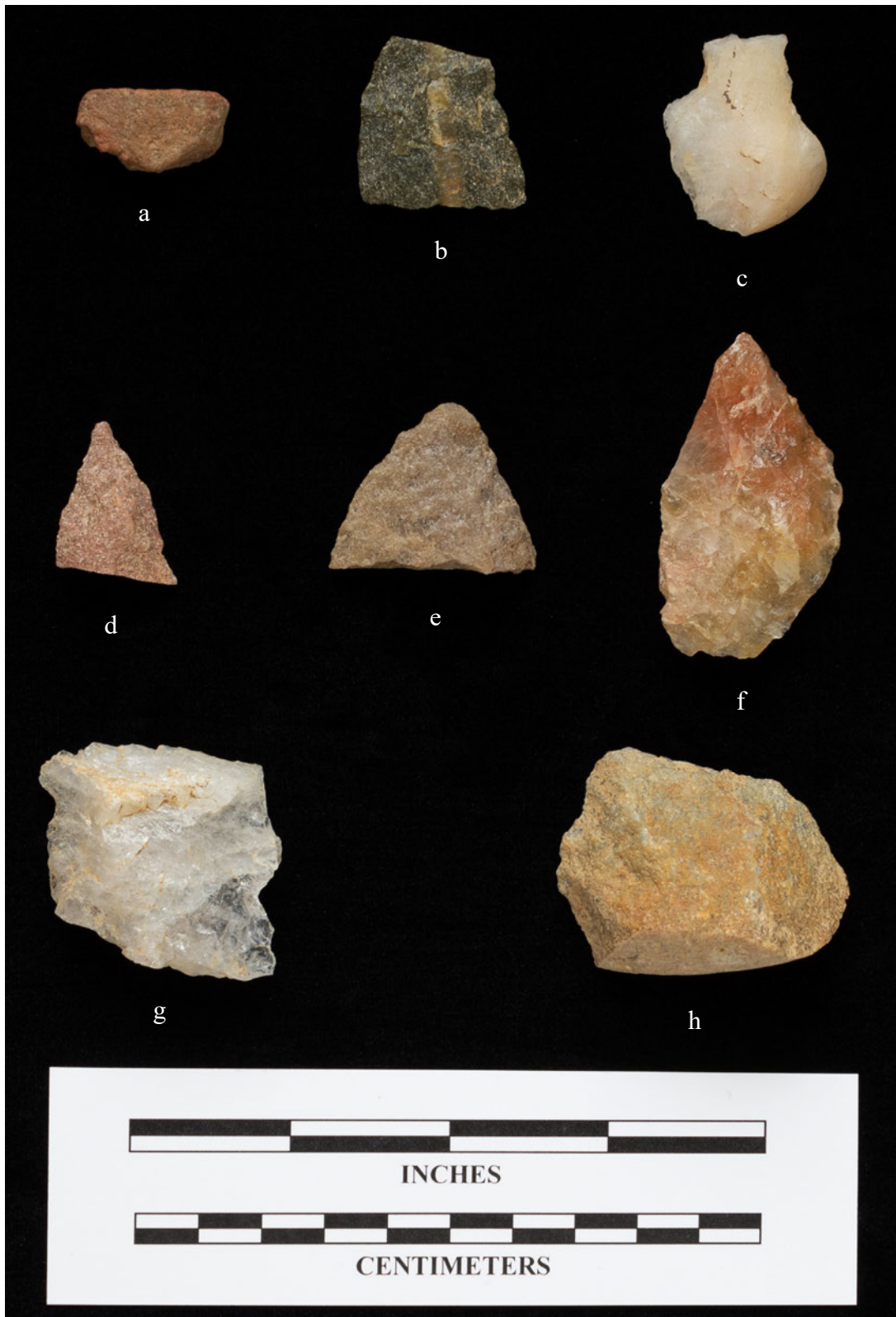


Figure 7.42. Representative Pre-Contact Ceramic and Flaked Stone Tools from Site 18PR113. a) unclassified plain sherd; b) quartzite small triangular PPK base; c) quartz graver; d) quartzite late stage biface; e) quartzite late stage biface; f) quartz mid stage biface; g) quartz retouched flake; h) quartzite retouched flake



Figure 7.43. Representative Large Cores from Site 18PR113. a) quartzite core fragment; b) quartzite core fragment; c) quartzite amorphous core



Figure 7.44. Representative Small Cores from Site 18PR113. a) quartz amorphous core; b) quartz bipolar core; c) quartz core fragment; d) quartzite core fragment

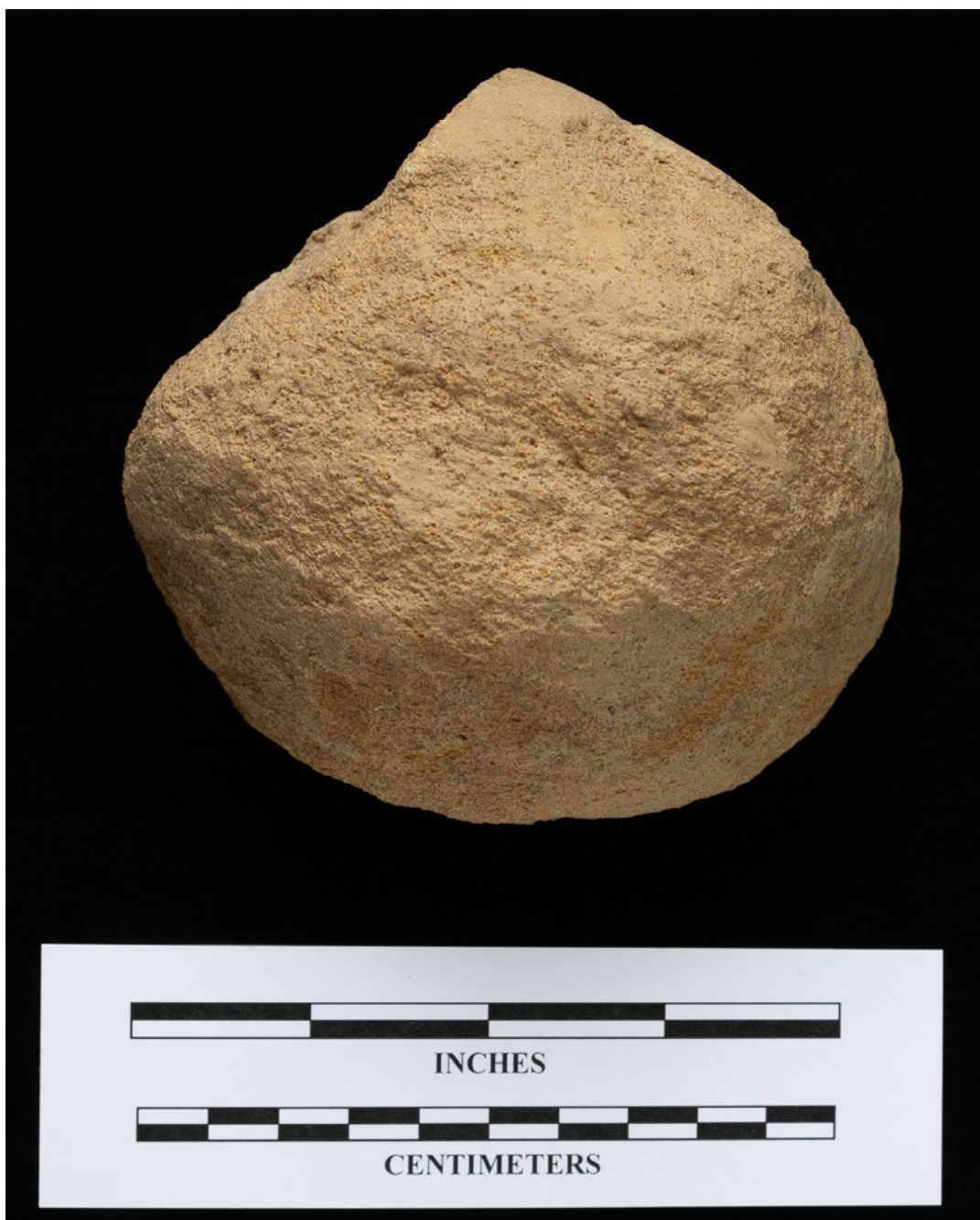


Figure 7.45. Hammerstone/Anvil from Site 18PR113.

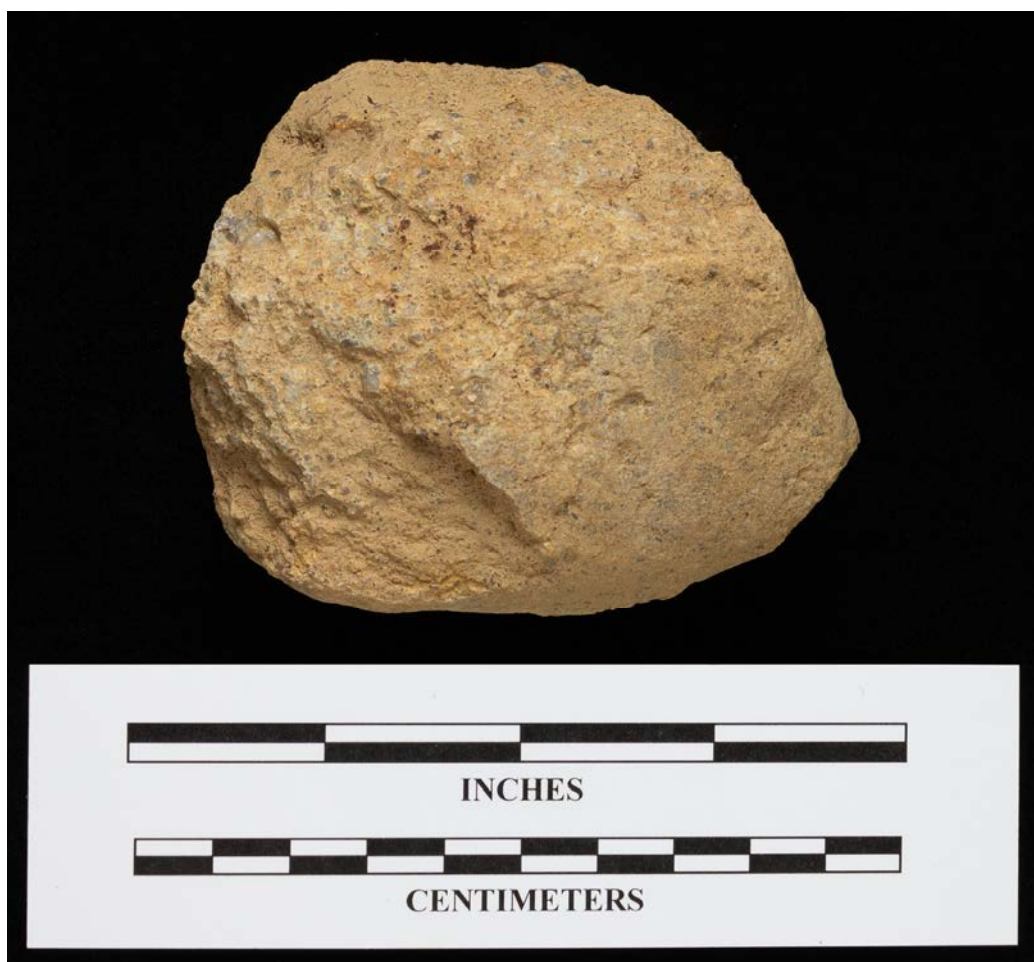


Figure 7.46. Hammerstone from Site 18PR113.

The project investigations on 18PR113 recovered a fairly substantial and diverse assemblage potentially associated with multiple pre-contact components in apparent intact contexts. The investigations also encountered a potential pre-contact pit feature in the eastern portion of the site, outside the LOD, where artifact density is highest. The abundance of debitage, cores, and staged bifaces, and the recovery of two hammerstones strongly suggest that a focus of the occupations was on the procurement and initial reduction of the cobbles from Paint Branch. Although the evidence is limited to a single pre-contact period ceramic sherd, the materials from the Bt1 horizon at least are likely to be associated with a Late Woodland period occupation, and the Bt2 horizon may be associated with an earlier occupation, possibly dating to the Late Archaic period. Site 18PR113 appears to retain cultural and stratigraphic integrity and clarity of deposits that would enable it to provide meaningful and interpretable data regarding the pre-contact period occupations of this area and Phase II investigations are recommended to determine whether the site is eligible for the NRHP. Only the western portion of the site is located within the project LOD, and although this area is characterized by a lower density of materials and no cultural features were encountered in this area, there is some potential for this area to contain features and more substantial deposits that would provide meaningful data related to regional research issues. Avoidance or further investigation is recommended for this portion of the project LOD.

Ridge Nose

The central and western portions of the Tributary 2 survey area contain a narrow ridge nose located immediately north of unnamed Tributary 2, overlooking the confluence with Paint Branch (see Figure 7.1).

This landform continues to the west where it broadens into a T3 terrace outside of the survey area. One shovel test was initially placed on the ridge nose (ST 2.2) to investigate this portion of the survey area. Stratigraphy encountered in this area varies somewhat, particularly with the thickness of the B horizons, but is generally consistent with the Russett component of the Russett-Christiana complex soils (2 to 5% slopes) that are mapped by the USDA NRCS (2020) for this area. In general, the area as displayed in the shovel tests is characterized stratigraphically by an Ap horizon overlying a Bt1 horizon (Stratum II), a Bt2 horizon (Stratum III), and a Bt3 horizon (Stratum IV). That initial shovel test excavated [REDACTED] produced artifacts, resulting in the identification of newly recorded site 18PR1190, which was further investigated with additional shovel tests and a test unit.

18PR1190

Site 18PR1190 is located [REDACTED] [REDACTED] and is mainly situated within a moderately dense hardwood forest with a moderately dense ground cover of scrub brush and new growth (see Figure 7.1, Figure 7.47). Open old field succession vegetation of perennial grasses and small shrubs are located within a small overhead utility line right-of-way that [REDACTED]. During the project survey, pre-contact period artifacts were recovered from 16 of the 17 shovel tests that were ultimately excavated at 15-ft intervals within an area at the far eastern end of the ridge that forms the T3 terrace (Figure 7.48). The site is bounded to the [REDACTED]. [REDACTED] However, the site likely extends both to the west and northwest along the T3 terrace, given the fact that almost all shovel tests produced artifacts.



Figure 7.47. View of Site 18PR1190, Facing West.

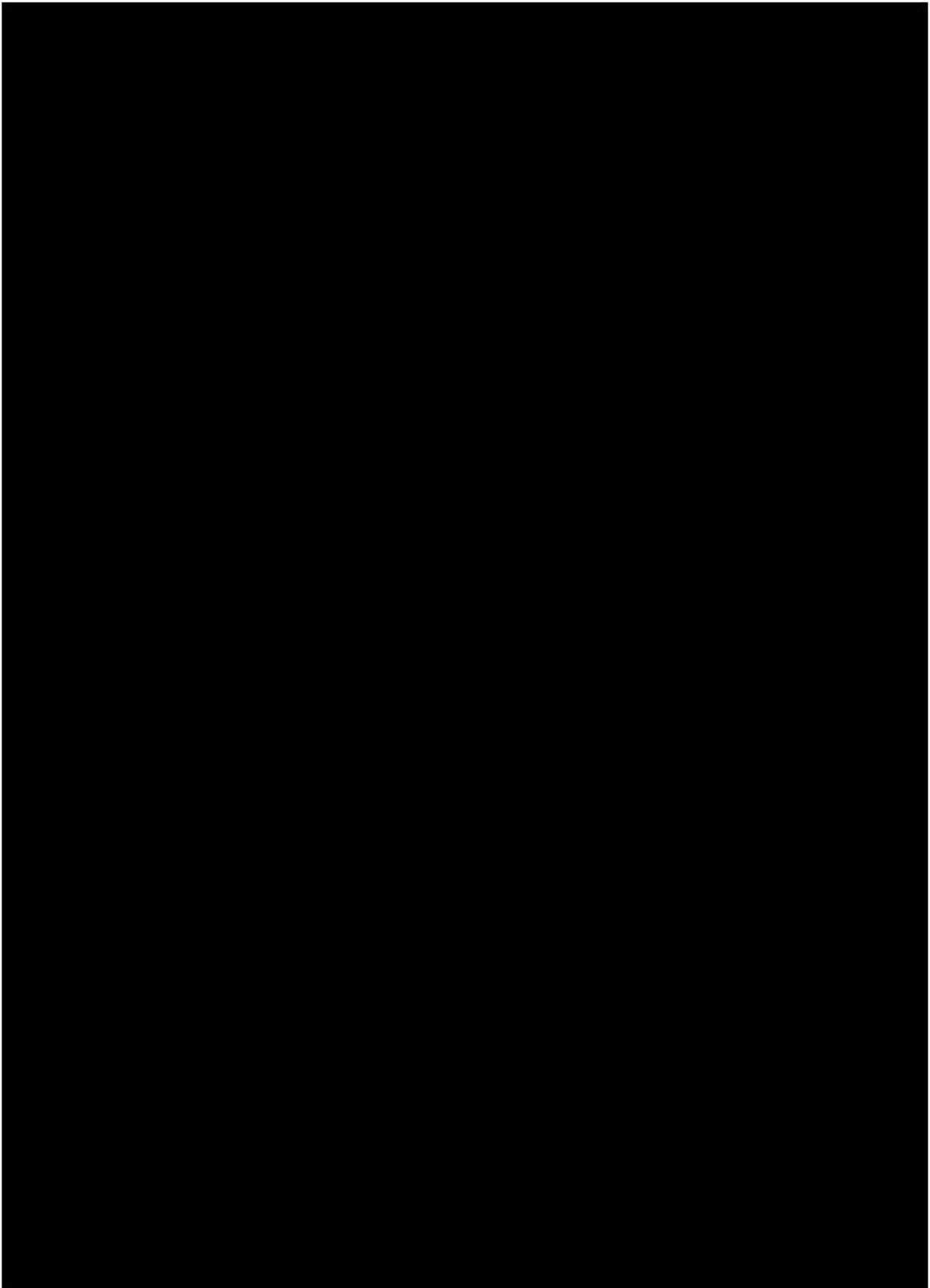


Figure 7.48. Map of Site 18PR1190.

The shovel tests encountered a consistent soil sequence, with slight variations in color and depth, involving a plowzone overlying three Bt horizons. A typical profile as represented at shovel test 2.2 consisted of an Ap horizon (0–0.33 fbs) of dark brown (10YR 3/3) silt loam; a Bt1 horizon (0.33–1.0 fbs) of brown (10YR 4/3) gravelly silt loam; a Bt2 horizon (1.0–1.7 fbs) of strong brown (7.5YR 5/6) compact gravelly silty clay loam; and a Bt3 horizon (1.7–2.1+ fbs) of very pale brown (10YR 7/4) very compact gravelly silty clay loam. The soil sequence is underlain by gravels, as shown by a rodent exposure noted on the south side of the ridge, which displayed a considerable amount of gravel and cobbles eroding from the side of the ridge (Figure 7.49). Farther to the west along the T3 terrace, the representative shovel test profile as displayed at N525 E385 consists of an Ap horizon (0–0.5 fbs) of very dark grayish brown (10YR 3/2) silt loam; a Bt1 horizon (0.5–1.0 fbs) of dark yellowish brown (10YR 4/4) silt loam; a Bt2 horizon (1.0–2.1 fbs) of yellowish brown (10YR 5/8) compact silty clay loam; and a Bt3 horizon (2.1–2.6+ fbs) of brownish yellow (10YR 6/6) mottled with very pale brown (10YR 7/3) very compact sandy loam.



Figure 7.49. View of Eroding Gravel and Cobbles at Site 18PR1190, Facing Northwest.

Shovel tests recovered 247 pre-contact artifacts, consisting of one quartz and one quartzite Savannah River PPKs, one quartzite Orient Fishtail PPK, one quartz triangular PPK, two quartz and two quartzite biface fragments, three quartz retouched flakes, one soapstone sherd, two quartz and four quartzite cores, 142 pieces of quartz ($n=39$), quartzite ($n=95$), and rhyolite ($n=8$) debitage, and two quartz and 85 quartzite FCR (Table 7.7). The triangular PPK is similar in morphology to Late Archaic and Woodland period triangular types found in the region and given its stratigraphic context in association with Late and Terminal Archaic period artifacts, it may represent a Late Archaic period triangular type, although this cannot be confirmed based on the limited information gathered during the survey.

Artifacts were recovered across the full extent of the tested portions of the ridge and the T3 terrace from east to west (E325 to E520) and north to south (N495 to N555). The largest concentration of artifacts is located along the T3 terrace edge in the western portion of the site (outside the LOD), between N495–555 E325–400 (see Figure 7.48). Shovel tests in this area contained between nine and 37 artifacts each, with

high counts found at N525 E400 ($n=37$), N540 E340 ($n=32$), N525 E385 ($n=30$), N525 E370 ($n=24$), and N510 E400 ($n=20$).

Table 7.7. Shovel Test Artifacts from Site 18PR1190 by Horizon.

Artifact Type		Horizon			Total
		Ap	Bt1	Bt2	
Tool	Triangular PPK, Quartz		1		1
	Orient Fishtail PPK, Quartzite	1			1
	Savannah River PPK, Quartz		1		1
	Savannah River PPK, Quartzite	1			1
	Early Stage Biface, Quartz	1			1
	Mid Stage Biface, Quartz	1			1
	Mid Stage Biface, Quartzite		1		1
	Late Stage Biface, Quartzite		1		1
	Retouched Flake, Quartz	1	2		3
Debitage	Exhausted Core, Quartz		1		1
	Exhausted Core, Quartzite	1	1		2
	Core Fragment, Quartz		1		1
	Core Fragment, Quartzite	1	1		2
	Bipolar Flake, Quartzite		1		1
	Broken Flake, Quartz		1	1	2
	Broken Flake, Quartzite	1	5	2	8
	Flake Fragment, Quartz	10	14	1	25
	Flake Fragment, Quartzite	14	55	13	82
	Flake Fragment, Rhyolite	5	3		8
	Shatter, Quartz	1	10	1	12
	Shatter, Quartzite	1	2	1	4
Other Lithic	Soapstone Vessel Fragment		1		1
	Fire Cracked Rock, Quartz	1	1		2
	Fire Cracked Rock, Quartzite	19	55	11	85
Total		59	158	30	247

High artifact density was also observed in the easternmost portion of the site, just inside the LOD (see Figure 7.48). Artifact density in the three shovel tests in that area ranged from 4–34 each, with shovel test N510 E500 yielding the highest count ($n=34$). The lowest artifact density occurred in the central part of the site, just to the west of the LOD between N510 E425–480.

A majority of the artifacts from the shovel tests were recovered from the intact Bt1 horizon (64%, or $n=158$), including a single soapstone vessel fragment, two biface fragments, two retouched flakes, four core and core fragments, one triangular PPK, and one Savannah River PPK. Nearly one-quarter of the artifacts were recovered from the Ap horizon ($n=59$), including two biface fragments, one Orient Fishtail PPK, one Savannah River PPK, and one retouched flake, slightly more than 10 percent of the artifacts were recovered from the intact and underlying Bt2 horizon ($n=30$), all of which consist of debitage and FCR.

Following the shovel testing at 18PR1190, one 5 × 5 ft test unit was excavated to investigate stratigraphy, gather larger artifact samples, and obtain additional information regarding the temporal components and potential activities performed at the site. TU 1 was placed at N502 E506, in the eastern part of 18PR1190 within the LOD. The TU was excavated in 0.25-ft levels, and cultural material was recovered to a depth of 1.80 fbs.

Test Unit 1. TU 1 was a 5 × 5 ft unit placed in the center of the ridge within the LOD (see Figure 7.48). Four strata were observed in TU 1 (Figure 7.50). Stratum I (0–0.25 fbs) was an Ap horizon of dark brown (10YR 3/3) silt loam; Stratum II (0.25–0.50 fbs) was a Bt1 horizon of dark yellowish brown (10YR 4/6) gravelly silt loam; Stratum III (0.50–1.80 fbs) was a Bt2 horizon of yellowish brown (10YR 5/8) compact gravelly silt loam; Stratum IV (1.80–2.05 fbs) was a Bt3 horizon of pale brown (2.5Y 7/3) very compact gravelly sandy clay that produced no artifacts. Excavation was terminated at 2.05 fbs.

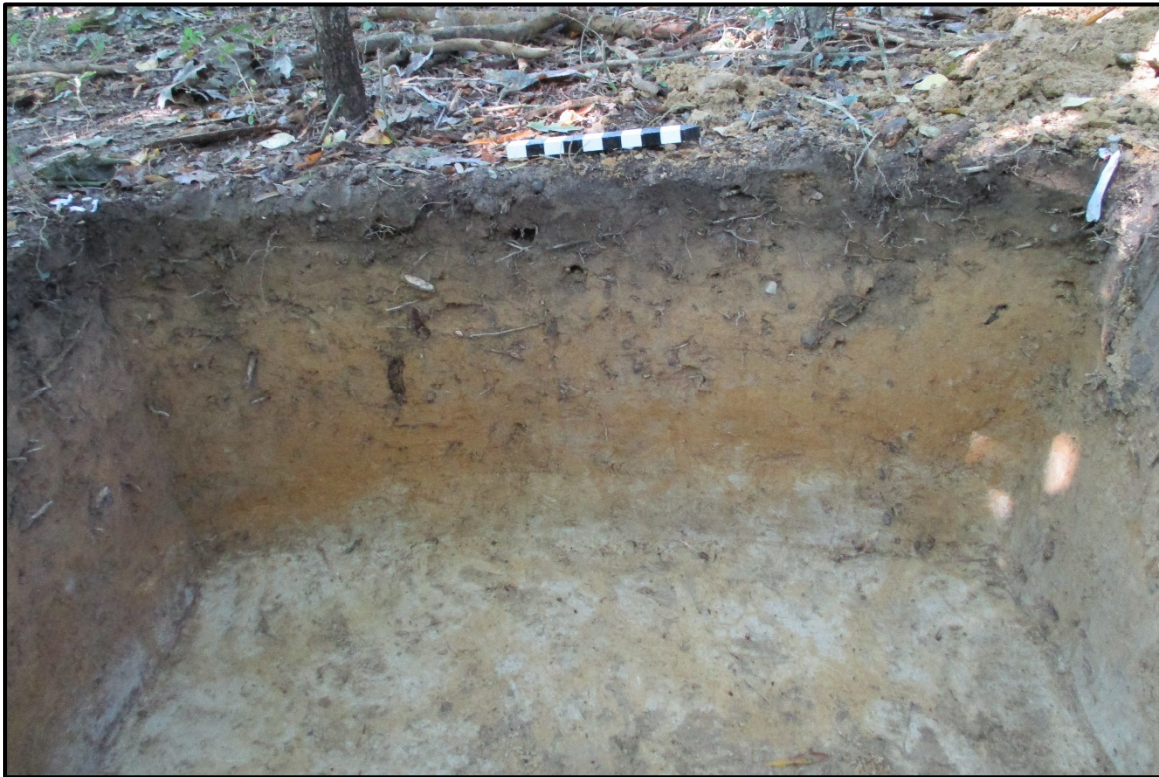


Figure 7.50. View of West Wall Profile of Test Unit 1 at Site 18PR1190, Facing West.

Excavation of TU 1 produced 758 artifacts from three soil horizons ranging in depth from 0.25–1.8 fbs (Table 7.8); no material was recovered from the lowest levels of the Bt horizon (1.80–2.05 fbs). Artifacts include 11 ceramic artifacts, three lithic tools, five quartz amorphous cores, two quartz bipolar cores, one quartz exhausted core, eight quartz core fragments, 647 pieces of chert ($n=1$), rhyolite ($n=4$), quartz ($n=350$), and quartzite ($n=292$) debitage, and 81 quartzite FCR. None of the ceramic artifacts are classifiable by type or temporal period; they include one eroded coarse sand tempered sherd, five residual sherds, and five pieces of fired clay. Lithic tools consist of two quartz retouched flakes and one quartz utilized flake.

The thin Ap horizon (0–0.25 fbs) yielded 71 artifacts, including 42 quartz flakes, 23 quartzite flakes, one chert flake, and five quartzite FCR. The likewise thin Bt1 horizon (0.25–0.50 fbs) contained 158 artifacts, including two quartz retouched flakes, three quartz amorphous cores, two quartz bipolar cores, two quartz core fragments, 72 quartz and 62 quartzite flakes, and 15 quartzite FCR. The thick Bt2 horizon (0.50–1.80 fbs) contained the highest density of artifacts recovered in TU 1 ($n=529$), which include one coarse sand tempered unidentified sherd, five residual sherds, five pieces of fired clay, one quartz utilized flake, two quartz amorphous cores, one quartz exhausted core, six quartz core fragments, 447 pieces of debitage (four rhyolite, 225 quartz, 218 quartzite), and 61 quartzite FCR.

Table 7.8. Artifacts from Test Unit 1 at Site 18PR1190 by Horizon.

Artifact Type		Horizon			Total
		Ap	Bt1	Bt2	
Ceramic	Residual Sherd			5	5
	Unclassified Sherd			1	1
	Fired Clay			5	5
Tool	Retouched Flake, Quartz		2		2
	Utilized Flake, Quartz			1	1
Debitage	Bipolar Core, Quartz		2		2
	Amorphous Core, Quartz		3	2	5
	Exhausted Core, Quartz			1	1
	Core Fragment, Quartz		2	6	8
	Complete Flake, Quartz		3	1	4
	Complete Flake, Quartzite			6	6
	Complete Flake, Chert	1			1
	Broken Flake, Quartz	3	8	26	37
	Flake Fragment, Quartz	33	58	181	272
	Flake Fragment, Quartzite	20	52	204	276
	Flake Fragment, Rhyolite			4	4
	Bipolar Flake, Quartz		1	2	3
	Bipolar Flake, Quartzite			1	1
	Shatter, Quartz	9	10	15	34
	Shatter, Quartzite		2	7	9
Other Lithic	Fire Cracked Rock, Quartzite	5	15	61	81
Totals		71	158	529	758

The Phase I assemblage from site 18PR1190 consists of 11 ceramic and 994 lithic artifacts associated with multiple pre-contact occupations of this fairly small landform. The single unclassified ceramic sherd is tempered with coarse sand but is too eroded and small to be formally typed (Figure 7.51a). The possible soapstone vessel fragment is very small, thin, and well smoothed but does not have any curvature, so it is possible that it is a fragment of some other type of artifact such as a gorget (Figure 7.52a). The lithic tools include four PPKs, four staged bifaces, and six utilized/retouched flakes (Figures 7.51–7.53). The Orient Fishtail and the broad bladed Savannah River PPKs are made of quartzite and the small triangular and narrow bladed Savannah River PPKs are made of quartz. Three of the utilized/retouched flakes have morphology that suggests they may have functioned as perforators or gravers (Figures 7.53b, 7.53d, and 7.53e), and the others may have been used for some type of scraping or cutting tasks based on morphology. The site has also produced a substantial collection of cores ($n=22$) and debitage ($n=789$), as well as 168 FCR (Figures 7.54 and 7.55). Although a majority of the pieces of debitage are smaller than 2 cm, a third of them are larger, and all stages of lithic reduction appear to be well represented in the debitage category. Almost all of the debitage retains no cortex, which is surprising considering the presumed cobble form of the initial material, and it is possible that the material with cortex was deposited elsewhere nearby. Only one of the lithic artifacts is chert, quartzite is by far the most well represented lithic material ($n=593$), quartz is the second most predominant lithic material ($n=389$), and 12 of the lithic artifacts are rhyolite. In general, the lithic material types appear to be similarly distributed across the site and within the horizons, with no evident horizontal or vertical patterns based on raw material.



Figure 7.51. Pre-Contact Ceramic and Tools from Site 18PR1190. a) unclassified sherd; b) quartzite Orient Fishtail PPK; c) quartzite Savannah River PPK; d) quartz Savannah River PPK; e) quartz triangular PPK

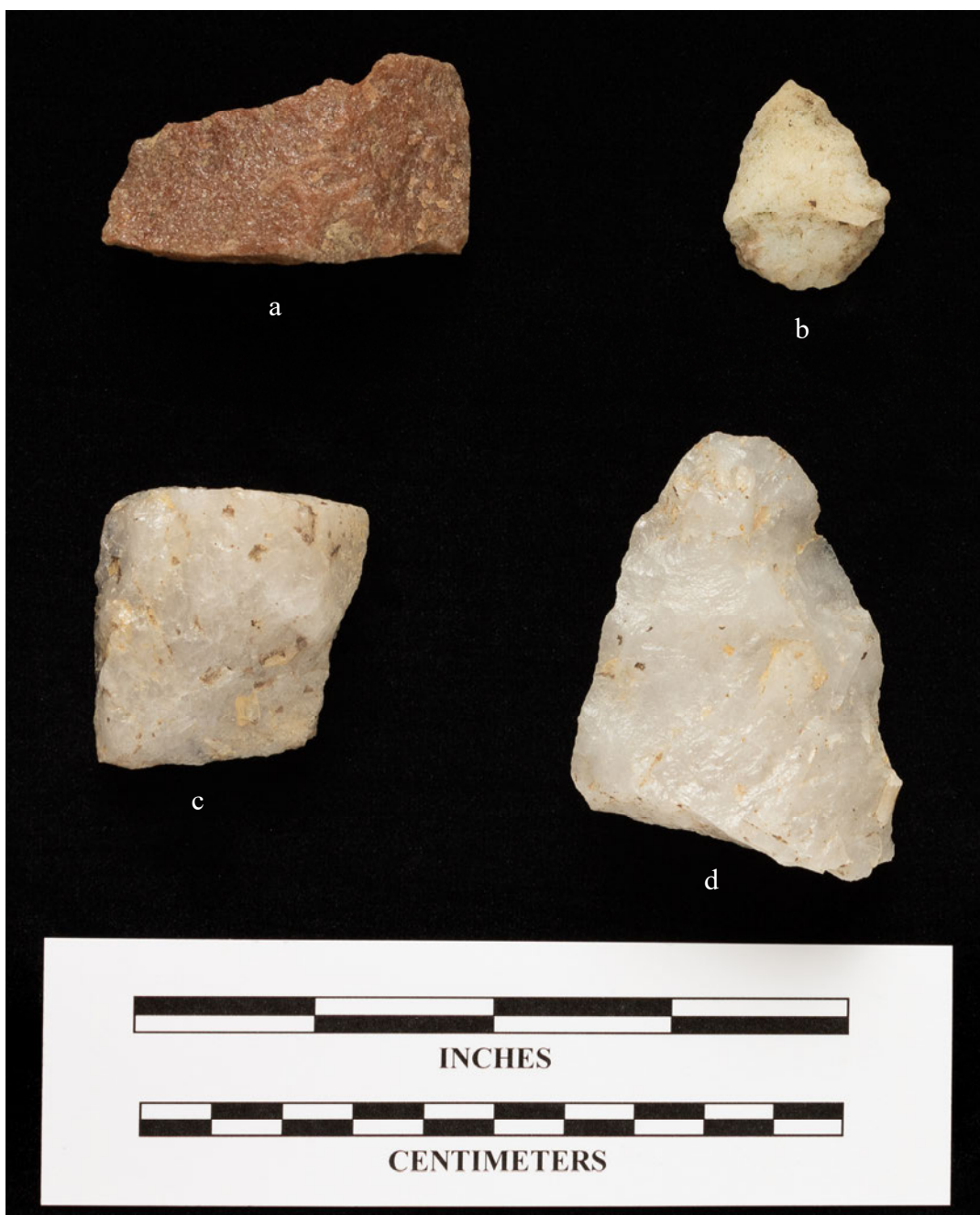


Figure 7.52. Representative Bifaces from Site 18PR1190. a) quartzite mid stage biface; b) quartzite late stage biface; c) quartz mid stage biface; d) quartz early stage biface



Figure 7.53. Utilized and Retouched Flakes from Site 18PR1190. a–d, g) quartz retouched flake; e) quartz utilized flake; f) quartzite retouched flake

Temporally diagnostic artifacts indicate occupations during the Late and Terminal Archaic periods, as represented by the Savannah River and Orient Fishtail PPKs and the soapstone vessel fragment, and possibly the triangular PPK, and undetermined Woodland period occupation(s) as represented by the ceramic artifacts. The Ap horizon produced one Savannah River PPK and one Orient Fishtail PPK; the Bt1 horizon produced the other Savannah River PPK, the triangular PPK, and the soapstone sherd; and the Bt2 horizon contained all of the ceramic items. All of the Archaic period artifacts were found in shovel tests so it is possible that vertical control was not as precise during excavation of some of the shovel tests, but it is unlikely that this would be true for all of the Late Archaic materials. For the survey materials, the specific strata contain deposits from a specific component across the site, however, it is unclear whether Woodland period deposits are stratigraphically below Archaic period deposits across the site. It is possible that the site strata/components are characterized by varying horizontal distribution of materials, similar to that observed on 18PR113. With the exception of the Orient Fishtail PPK, which was found at the easternmost edge of the site, the Late Archaic period artifacts were found in the west half of the site and the Woodland period artifacts were found in the east half of the site.



Figure 7.54. Representative Large Cores from Site 18PR1190. a, b) quartz amorphous core; c) quartz core fragment; d) quartzite exhausted core; e) quartzite core fragment

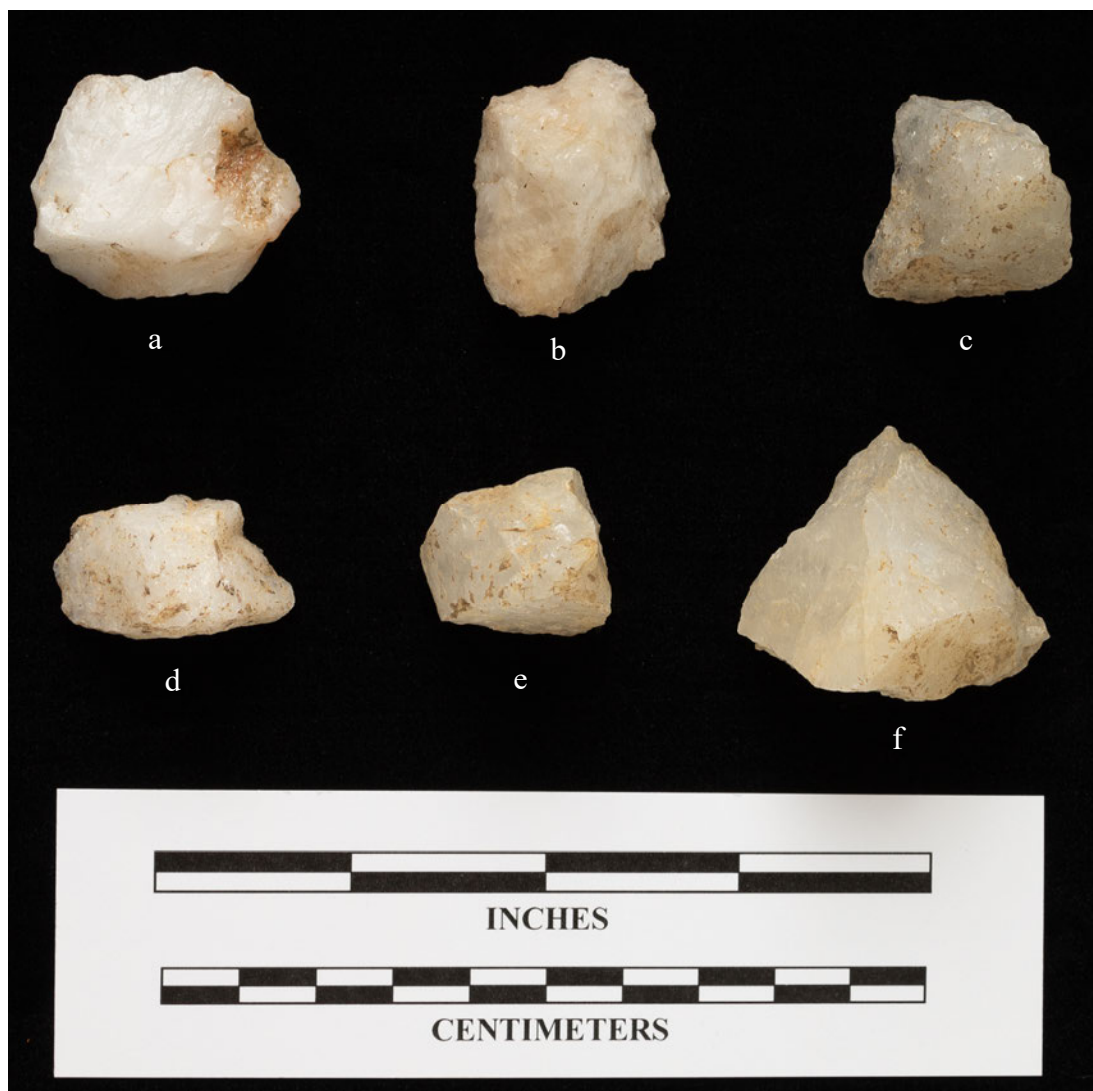


Figure 7.55. Representative Small Cores from Site 18PR1190. a, f) quartz core fragment; b) quartzite exhausted core; c) quartz bipolar core; d, e) quartz exhausted core

No cultural features were observed on the site, although a fairly large number of FCR were recovered, suggesting the potential for the presence of intact cultural features. Only 25 FCR were found in the Ap horizon, but far more were found in the Bt1 ($n=71$) and Bt2 horizons ($n=72$). Almost half of the FCR were recovered from the test unit, with most of those (75%) found in the Bt2 horizon. The FCR found in shovel tests were all found in the west half of the site (E325–E400), and a larger portion of those (64%) were found in the Bt1 horizon.

The survey results suggest that site 18PR1190 could retain cultural and stratigraphic integrity and clarity of deposits that could provide meaningful and interpretable data regarding the Late Archaic, Terminal Archaic, and Woodland period occupations of this area. Specifically, the large amount of debitage, cores, staged bifaces, and expedient tools recovered during the shovel test and test unit excavations suggests that procurement and initial reduction of locally available cobbles was a major activity performed at the site. Additional investigations of site 18PR1190 could provide valuable and significant data regarding lithic raw material acquisition, reduction, and tool production within the Paint Branch watershed. Based on the results of the survey, site 18PR1190 is recommended potentially eligible for the NRHP, and avoidance or further investigation is recommended for this site.

M-NCPPC SECTION (AN-6)

The M-NCPPC section is within the AN-6 project area and consists of two separate areas bisected by I-95 South, just north of the I-95/I-495 interchange, and involves two long, narrow linear areas, one just west of the I-95S/I-495W interchange and one just east of the I-95S/I-495E interchange (Figure 7.56). The LOD west of the I-95S/I-495W interchange is an approximately 434 ft long (north-south) by 14 to 261 ft wide (east-west) area, while the LOD to the east of the I-95S/I-495E interchange is approximately 619 ft long (north-south) by 32 to 203 ft wide (east-west). The area is covered in moderately dense hardwood forest with a moderately dense ground cover of scrub brush and new growth (Figures 7.57 and 7.58). The soil series mapped in both of the areas by the USDA NRCS (2020) is Codorus and Hatboro soils, frequently flooded. Three shovel tests were excavated along a single transect running north-south [REDACTED]. No shovel tests were excavated in the remainder of the section due to steep slope, prior disturbance, and/or wet soils and standing water. Cultural material was encountered in fill layers of two of those shovel tests and recorded as resource 18PRX284-7. No further archaeological investigation is recommended in this section for this project.

18PRX284-7

Artifact scatter 18PRX284-7 was identified on a [REDACTED] (Figure 7.56). Vegetation in the area consists of a moderately dense wooded area with dense to moderately dense underbrush (Figure 7.59). Ten historic artifacts were recovered from Stratum V (1.7–3.4 fbs) of shovel test 1.1, including one brick fragment, one plastic fragment, one brown glass Schlitz beer bottle fragment, five pieces of colorless container glass, and two earthenware tile fragments. One iron alloy hook was also found in Stratum II (3.0–3.6 fbs) of shovel test 2.1. One shovel test (2.2) excavated 134 ft east of shovel test 1.1 and 123 ft south of shovel test 2.1 did not contain any cultural material. Shovel test 1.1 contained five strata—Stratum I (0–0.5 fbs) was light yellowish brown (10YR 6/4) modern sandy alluvium; Stratum II (0.5–0.8 fbs) was brown (10YR 4/3) sandy loam representing a buried historic ground surface; Stratum III (0.8–1.2 fbs) was light yellowish brown (10YR 6/4) modern sandy alluvium; Stratum IV (1.2–1.7 fbs) was brown (10YR 4/3) sandy loam representing a buried historic ground surface; and Stratum V (1.7–3.4+ fbs) was light yellowish brown (10YR 6/4) modern sandy alluvium. In contrast, shovel test 2.1 contained three strata—the top stratum (0–0.3 fbs) was a dark brown (10YR 3/3) silt loam A horizon; Stratum II (0.3–3.6 fbs) was brown (10YR 5/3) sandy loam modern alluvium; and Stratum III (3.6–4.0+ fbs) was a grayish brown (10YR 5/2) sandy clay loam Bwg horizon. Because of the disturbed soil layers, the soils encountered in this area are not consistent with the Cordorus and Hatboro series mapped for the area by the USDA NRCS (2020). The historic artifacts recovered from 18PRX284-7 are not associated with intact and undisturbed deposits and do not represent a substantial archaeological resource in this location. No further archaeological investigation of this area is recommended for this project as currently scoped.

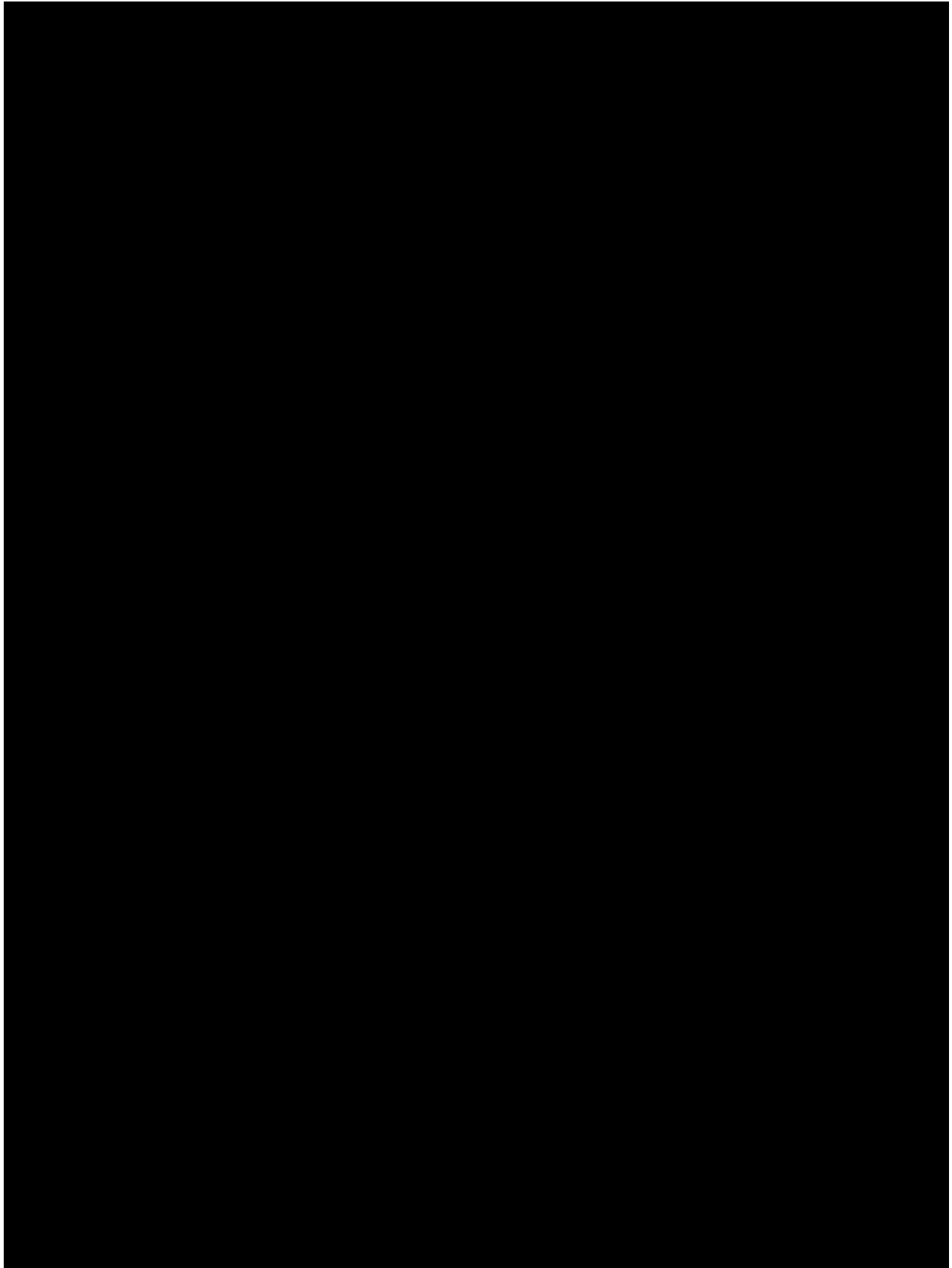


Figure 7.56. Paint Branch Survey Area within M-NCPPC Property, Shovel Tests, and Resources.



Figure 7.57. View of M-NCPPC Section, Facing West.



Figure 7.58. View of M-NCPPC Section, Facing Northeast.



Figure 7.59. View of Resource 18PRX284-7, Facing Southwest.

This page is intentionally left blank.

8. SUMMARY AND RECOMMENDATIONS

Cabin Branch (RFP-4) Stream Mitigation Site

The archaeological survey area for the Cabin Branch (RFP-4) stream mitigation site involved two areas, one along Owens Wilson Branch and one along Cabin Branch, as well as several proposed access roads for a total of 70.1 acres. Phase I archaeological survey was conducted in well-drained, level and gently sloping locations within 50 ft of the areas that are likely to experience construction disturbance, including wetland creation, stream restoration, and buffer enhancement activities. Areas proposed for preservation in this project site did not require archaeological survey, as no ground disturbance is proposed there. Also, areas of stream restoration will largely impact active stream channels with little archaeological potential.

The archaeological survey for the Cabin Branch stream mitigation site included a surface inspection of the entire LOD and the excavation of 359 shovel tests. The survey identified seven new archaeological resources—five pre-contact isolated find locations, an area containing redeposited historic artifacts, and a historic period site (Table 8.1). The isolated pre-contact period finds indicate ephemeral use of the area during the Late Archaic and potentially other pre-contact period(s). Although two of the finds were not fully delineated outside the LOD, none of the pre-contact isolated finds identified within the survey area have the potential to provide information important in history. The area of redeposited materials may also extend outside the LOD but lacks research potential. Historic period site 18AN1696 is a low-density scatter of 18th to 20th century artifacts primarily located within a gully. The site may extend outside the LOD and is considered unassessed for NRHP eligibility for that reason, but Phase I investigations did not indicate the presence of a substantial or intact archaeological site within the LOD. To ensure that no impact will occur to the portion of the site outside the LOD, it is recommended that this area be fenced during construction, and no further investigation of the Cabin Branch (RFP-4) mitigation site is recommended for this project (Figure 8.1).

Table 8.1. Summary of Archaeological Resources in Cabin Branch Site Archaeology Survey Areas.

Site	Description	Recommendation
18ANX520-1	Quartz Flake	No Further Investigation
18ANX520-2	Rhyolite Flake	No Further Investigation
18ANX520-3	Redeposited Historic Artifact Scatter	No Further Investigation
18ANX520-4	Rhyolite Flake	No Further Investigation
18ANX520-5	Quartzite Core and Quartz Flake	No Further Investigation
18ANX520-6	Late Archaic Small Savannah River PPK	No Further Investigation
18AN1696	Historic Artifact Scatter	Unassessed for NRHP; No Further Investigation

Mill Swamp (RFP-6) Stream Mitigation Site

The archaeological survey areas for the Mill Swamp (RFP-6) stream mitigation site involved four areas along Mill Swamp totaling 19.6 acres. Phase I archaeological survey was conducted within all well-drained, undisturbed portions of the Mill Swamp project that will be subject to excavation, planting, or other disturbance related to the project. This includes all areas designated as upland preservation and all well-drained areas within the project boundary and also includes areas designated for disposal of excavated material. Limited survey was conducted in areas not mapped as well drained to ensure adequate coverage of the area.

The archaeological survey for the Mill Swamp stream mitigation site included a surface inspection of a majority of the survey area and the excavation of 173 shovel tests and one 5 × 5 ft test unit. The survey identified three new archaeological resources—one pre-contact isolated find and two sites containing pre-contact and historic period components (Table 8.2). The isolated find identifies at least some limited use of

this area during the Early Woodland period but does not offer additional research potential. The boundaries of site 18CH971 extend outside the LOD and the site is considered unassessed for NRHP eligibility for that reason; however, the portion of the site located within the LOD does not offer further research potential. To ensure that no impact will occur to the portion of the site outside the LOD, it is recommended that this area be fenced during construction (Figure 8.2). Site 18CH972 lacks the integrity, clarity, and substantial deposits or cultural features that would allow it to provide substantive information in history and is recommended not eligible for the NRHP. No further investigation of the Mill Swamp (RFP-6) is recommended for this project as scoped (Figure 8.3).

Table 8.2. Summary of Archaeological Resources in Mill Swamp Site Archaeology Survey Areas.

Site	Description	Recommendation
18CH971	Middle Woodland Lithic Scatter; Early 20 th Century Domestic Site	Unassessed for NRHP; No Further Investigation
18CH972	Early Woodland Lithic Scatter; Late 19 th to 20 th Century Domestic Site	Not Eligible for NRHP; No Further Investigation
18CHX115-1	Early Woodland Calvert PPK	No Further Investigation

Paint Branch (AN-6 and AN-7) Stream Mitigation Sites

The Paint Branch (AN-6 and AN-7) stream mitigation sites archaeological survey areas include proposed staging locations, access roads, and other project elements along Paint Branch at the confluence of two unnamed tributaries located on USDA BARC property and one area located on M-NCPPC property for a total of 19.1 acres. Survey was conducted within all well-drained portions of this project not substantially disturbed by interstate construction, as well as within areas of Codorus and Hatboro soils, which have the potential to contain deeply buried archaeological deposits despite their poorly drained character. The archaeological survey for the Paint Branch stream mitigation sites included a surface inspection of the survey area and the excavation of 281 shovel tests and three 5 × 5 ft test units. The survey relocated two previously recorded resources and identified nine new archaeological resources—five sites containing pre-contact period components, four pre-contact isolated finds, one historic isolated find, and one area of redeposited cultural material (Table 8.3).

The two sites located [REDACTED] (18PR113 and 18PR1190), part of AN-7, extend outside the LOD and were not fully delineated in some directions; however, project results indicate that both sites may be eligible for the NRHP, and avoidance or further investigation of these resources is recommended (Figure 8.4). The archaeological site located [REDACTED] (18PR111) was also not fully delineated in some directions, however the investigations indicate that the portion of the site within the project LOD lacks the potential to provide information important in history. To ensure that no impacts will occur to the portion of site 18PR111 outside the LOD, it is recommended that this area be fenced during construction, and no further investigation of this site is recommended for the project (Figure 8.5). The two small pre-contact period sites, the isolated finds, and the redeposited materials provide evidence of pre-contact and historic period use of this area, and while the boundaries of all locations were not fully delineated outside the LOD, the resources identified within the project LOD do not appear to be able to provide information important in history and no further investigation of those resources is recommended for the project as currently scoped.

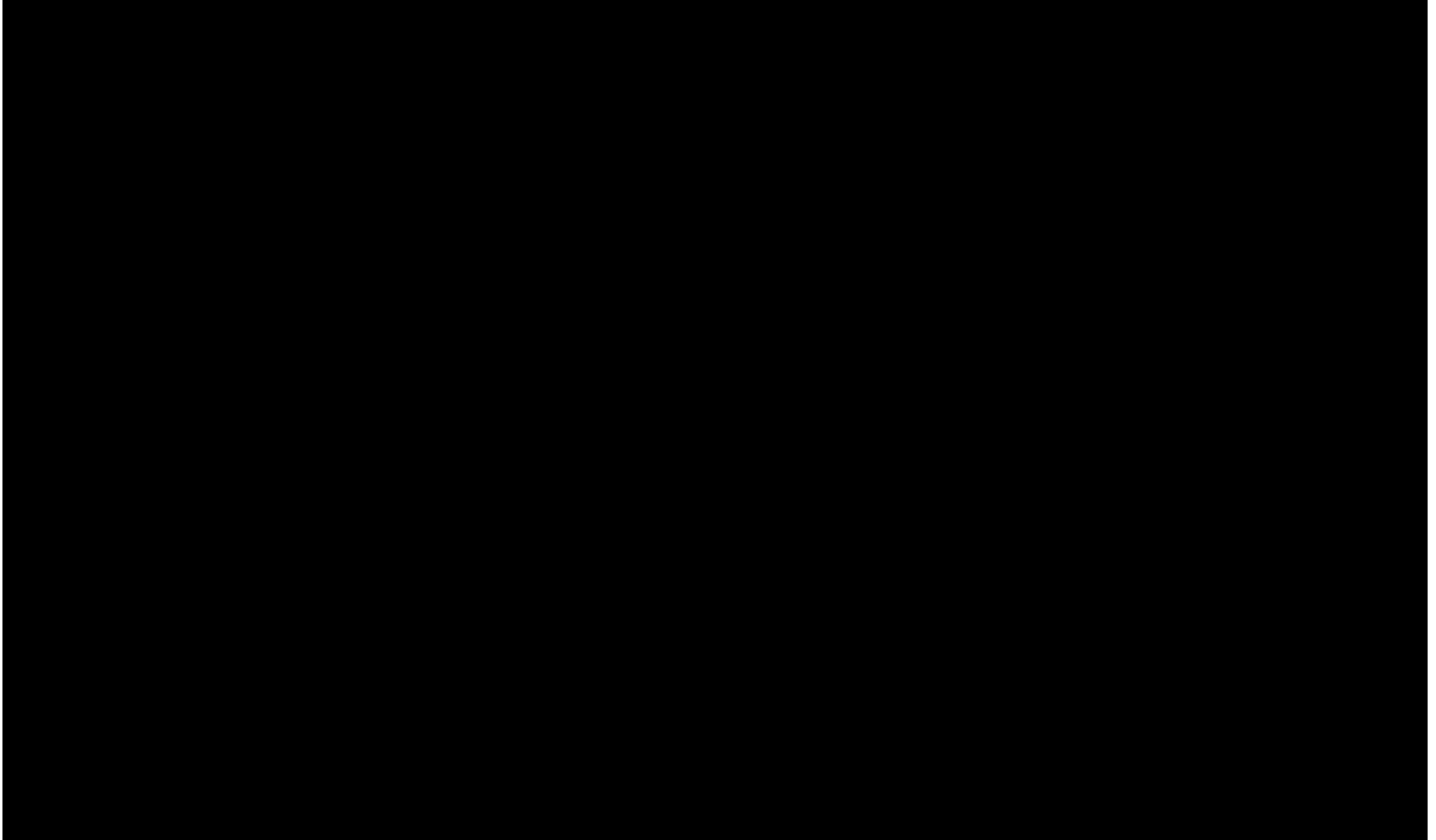


Figure 8.1. Map of Site 18AN1696 Showing Site in Relation to LOD.

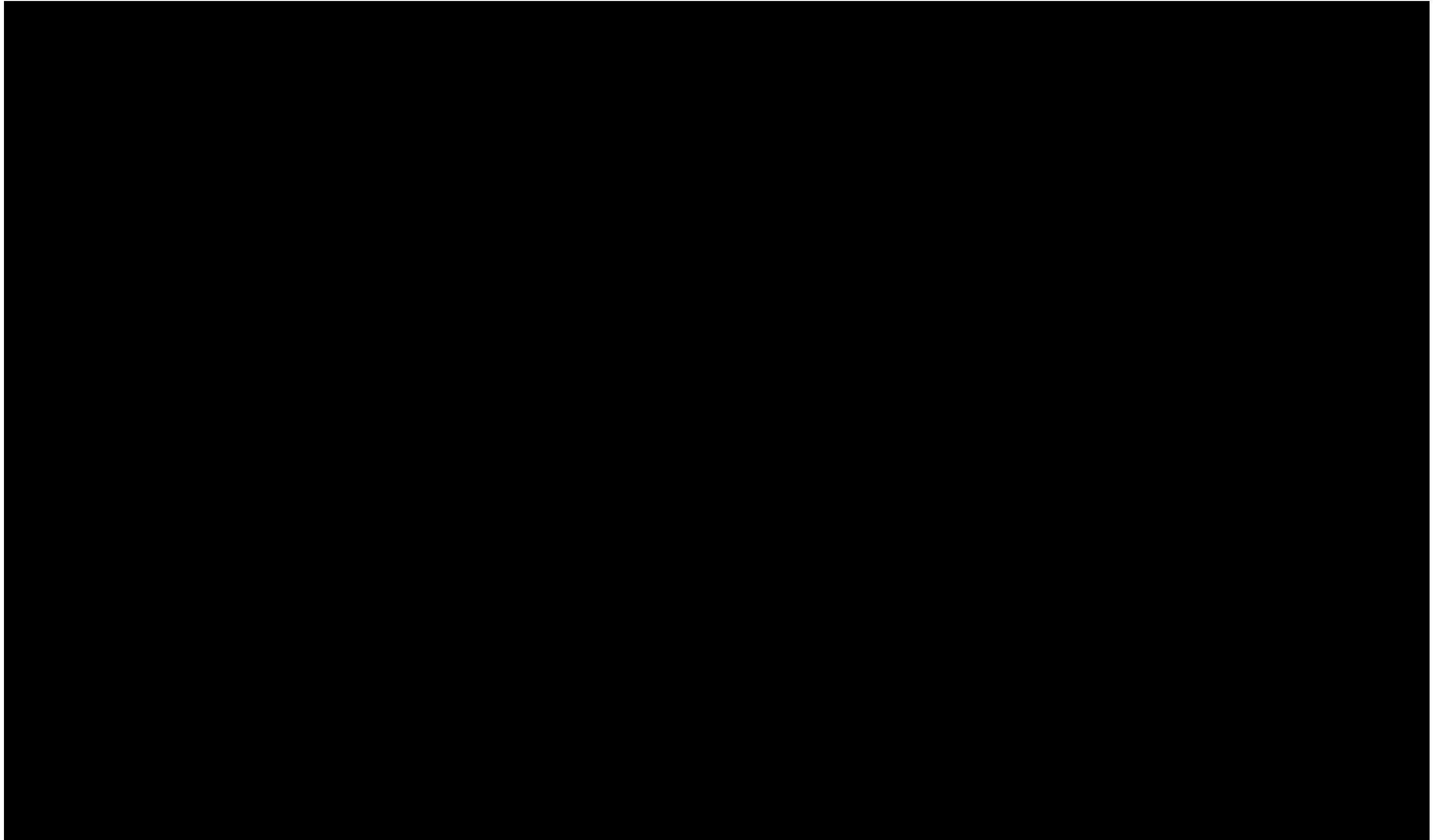


Figure 8.2. Map of Site 18CH971 Showing Site in Relation to LOD.

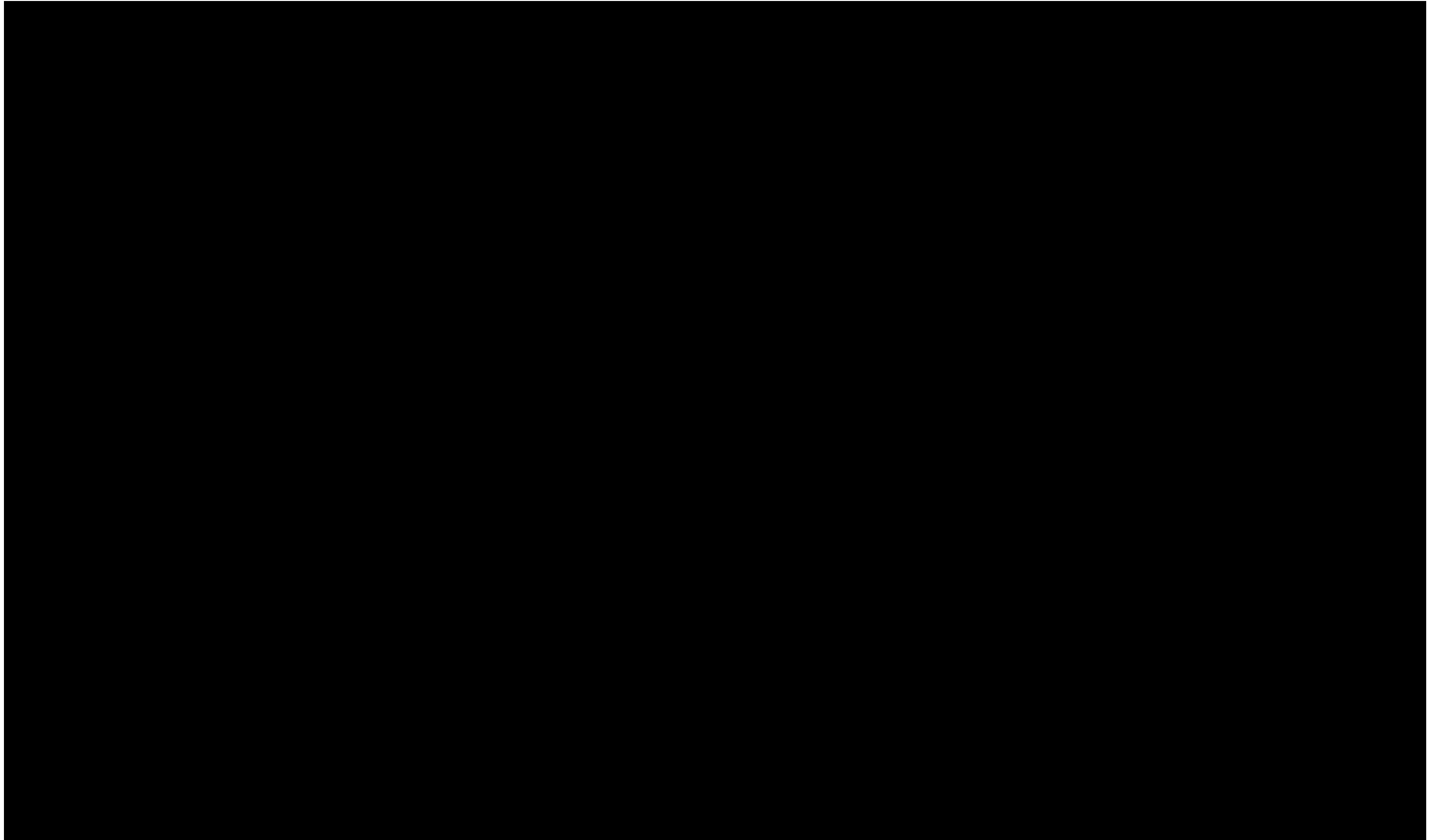


Figure 8.3. Map of Site 18CH972 Showing Site in Relation to LOD.

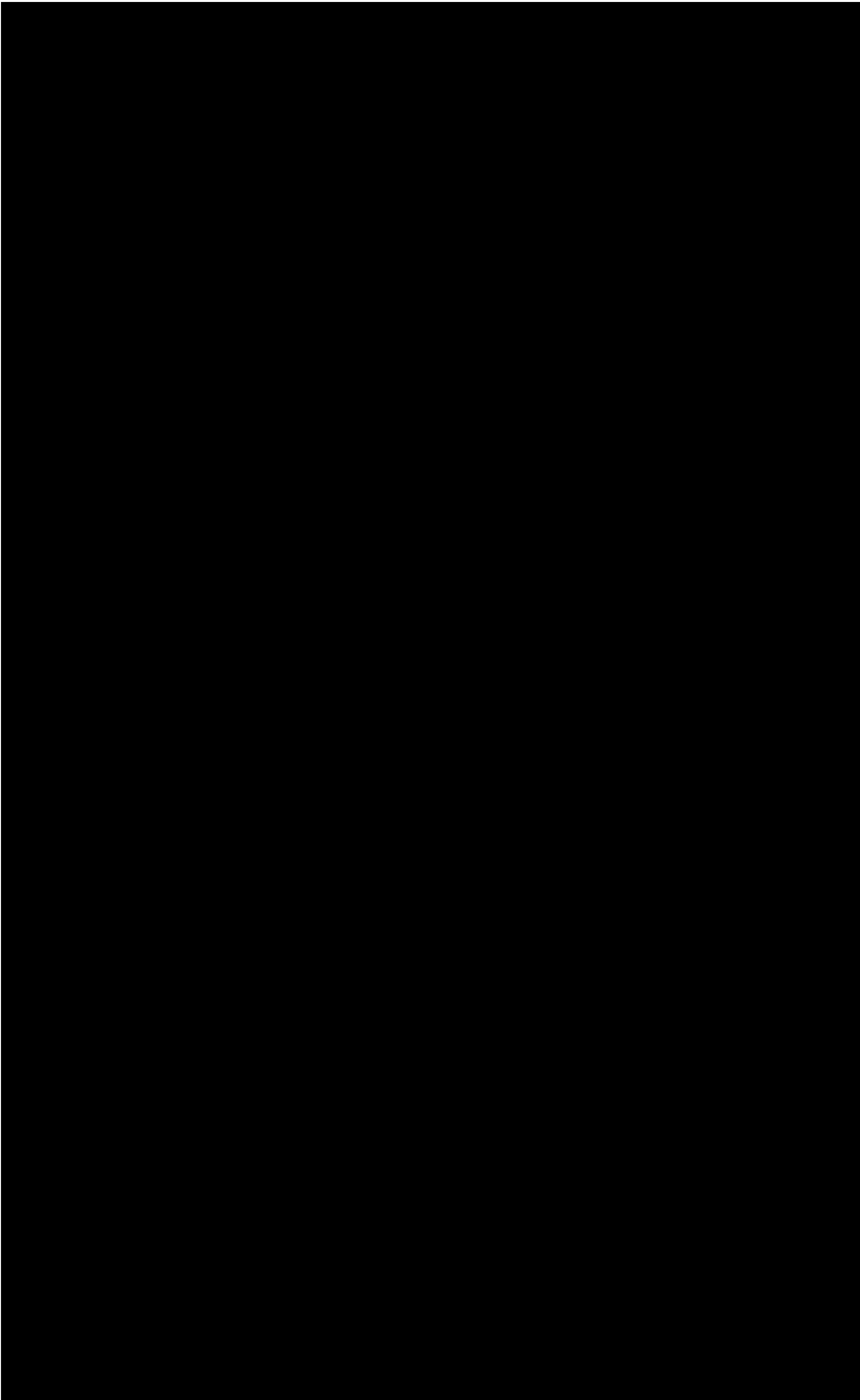


Figure 8.4. Map of Sites 18PR113 and 18PR1190 Showing Sites in Relation to LOD.

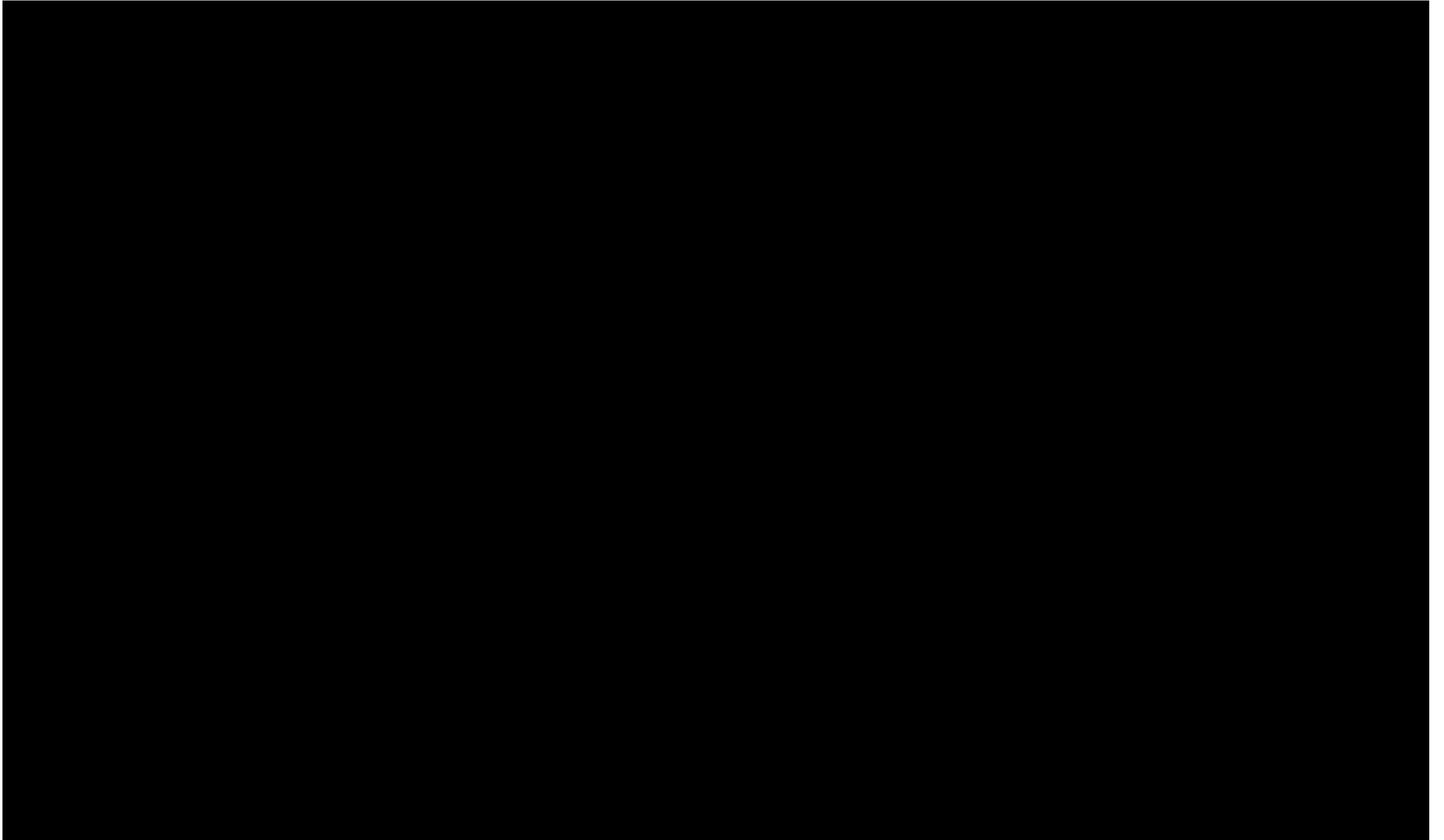


Figure 8.5. Map of Site 18PR111 Showing Site in Relation to LOD.

This page intentionally left blank.

Table 8.3. Summary of Archaeological Resources in Paint Branch Sites Archaeology Survey Areas.

Site	Description	Recommendation
18PR111	Unidentified Pre-Contact Campsite	Unassessed for NRHP; No Further Investigation
18PR113	Late Woodland Campsite	Potentially Eligible for NRHP; Phase II Investigation
18PR1190	Late Archaic and Late Woodland Campsite	Potentially Eligible for NRHP; Phase II Investigation
18PR1191	Unidentified Pre-Contact Lithic Scatter	Not Eligible for NRHP; No Further Investigation
18PR1192	Unidentified Pre-Contact Lithic Scatter	Not Eligible for NRHP; No Further Investigation
18PRX284-1	One Quartz Flake and One Jasper Flake	No Further Investigation
18PRX284-2	One Rhyolite Flake and One FCR	No Further Investigation
18PRX284-3	Two Quartzite Flakes	No Further Investigation
18PRX284-4	Cut Nail and Brick	No Further Investigation
18PRX284-5	One Schist Flake	No Further Investigation
18PRX284-6	Redeposited Pre-Contact & Historic Artifacts	No Further Investigation

This page intentionally left blank.

REFERENCES CITED

- Arnold, Brett, Jason L. Tyler, Jessica Brannock, Alexandra Glass, Alexander Keim, Jason Shellenhamer
2020 *Phase I Archaeological Investigation for the I-495 & I-270 Managed Lanes Study, Montgomery and Prince George's County, Maryland and Fairfax County, Virginia*. Maryland State Highway Administration Archaeological Report No. 543, Volume 4.
- Beauregard, Alan D., James R. Kodlick II, Elizabeth L. Roman, and Kimberly M. Anderson
1995 *Draft Report: Stage 1 - Archeological and Historic Context, Cultural Resources Overview for the U.S. 301 South Corridor Transportation Study, Prince Georges and Charles Counties, Maryland*. KCI Technologies, Inc., Mechanicsburg, Pennsylvania. Submitted to Maryland Department of Transportation, Baltimore.
- Blanton, Dennis B.
1996 Accounting for Submerged Mid-Holocene Archaeological Sites in the Southeast. In *Archaeology of the Mid-Holocene Southeast*, edited by K. Sassaman and D. Anderson, pp. 200–217. University Press of Florida, Gainesville.
- Boyd, C. Clifford
2003 Paleoindian Research in Virginia and Beyond. *Quarterly Bulletin of the Archaeological Society of Virginia* 58(2):5–93.
- Brush, Grace S., Cecilia Lenk, and Joanne Smith
1980 The Natural Forests of Maryland: An Explanation of the Vegetation Map of Maryland. *Ecological Monographs*, March 1980, Vol. 50, No. 1, pp. 77–92. Ecological Society of America, Washington, D.C.
- Carbone, Victor A.
1976 Environment and Prehistory in the Shenandoah Valley. Ph.D. dissertation, Department of Anthropology, The Catholic University of America, Washington, D.C.
- Carr, Lois Green
n.d. *The Economy of Colonial Somerset County, Maryland in Comparative Perspective*. Ms. On file, Maryland State Archives, Annapolis.
- Clark, Wayne
1973 18PR113. Basic data report on file, Maryland Inventory of Historic Properties Archaeological Site Survey, Maryland Historical Trust, Crownsville, Maryland.
- Coe, Joffre L.
1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society* 54(5):1–130. Philadelphia.
- Cowan, C. Wesley
1985 Understanding the Evolution of Plant Husbandry in Eastern North America: Lessons from Botany, Ethnography, and Archaeology. In *Prehistoric Food Production in North America*, edited by Richard I. Ford, pp. 205–243. Museum of Anthropology, University of Michigan, Anthropological Papers 75, Ann Arbor.
- Cowherd, Carol, and James G. Gibb
2015 18CH73. Basic data report on file, Maryland Inventory of Historic Properties Archaeological Site Survey, Maryland Historical Trust, Crownsville, Maryland.
- Cresthull, P.
1971 Chance 18SO5: A Major Early Archaic Site. *Maryland Archaeology* 7:51–52.
1972 Chance 18SO5: A Major Early Archaic Site, Part 2. *Maryland Archaeology* 8:40–53.
- Curry, Dennis C., and Carol A. Ebright
1990 Buried Archaic Sites in Ridgetop Settings on the Middle Atlantic Coastal Plain. Paper presented at the Joint Archaeological Congress, Baltimore, Maryland.
- Custer, Jay F.
1984 *Delaware Prehistoric Archaeology: An Ecological Approach*. University of Delaware Press, Newark.
1989 *Prehistoric Cultures of the Delmarva Peninsula: An Archaeological Study*. University of Delaware Press, Newark.
- Delcourt, Hazel
1978 Late Quaternary Vegetational History of the Eastern Highlands Rim and Adjacent Cumberland Plateau of Tennessee. *Ecological Monographs* 49:3:255–280.
- Dent, Richard J., Jr.
1995 *Chesapeake Prehistory: Old Traditions, New Directions*. Plenum Press, New York.

- Diamanti, Melissa, David J. Rue, and Conran A. Hay
 2008 *Phase I Archaeological Identification Survey for the I-495 Capital Beltway Mainline Project and Stormwater Management Ponds, Montgomery and Prince George's Counties, Maryland*. Archaeological & Historical Consultants, Inc., Centre Hall, Pennsylvania. Submitted to the Maryland Department of Transportation State Highway Administration, Baltimore, Maryland.
- Ebright, Carol A.
 1992 *Early Native American Prehistory on the Maryland Western Shore: Archaeological Investigations at the Higgins Site Vols. 1–3*. Maryland State Department of Transportation, Baltimore.
- Egloff, Keith T., and Stephen R. Potter
 1982 Indian Ceramics from Coastal Plain Virginia. *Archeology of Eastern North America* 10:95–117.
- Fenneman, Nevin M.
 1938 *Physiography of Eastern United States*. McGraw-Hill Book Company, Inc. New York and London.
- Gaber, Steven A., and Norman V. Mackie III
 1989 18AN725, 18AN726, and 18AN743. Basic data report on file, Maryland Inventory of Historic Properties Archaeological Site Survey, Maryland Historical Trust, Crownsville, Maryland.
- Gardner, William M.
 1982 Early and Middle Woodland in the Middle Atlantic: An Overview. In *Practicing Environmental Archaeology: Methods and Interpretations*, edited by R.W. Moeller. American Indian Archaeological Institute, Occasional Paper Number 3.
 1987 Comparison of Ridge and Valley, Blue Ridge, Piedmont, and Coastal Plain Archaic Period Site Distribution: An Idealized Transect. *Journal of Middle Atlantic Archaeology* 3:49–80.
 1989 An Examination of Cultural Change in the Late Pleistocene and Early Holocene (ca. 9200 to 6800 B.C.). In *Paleoindian Research in Virginia: A Synthesis*, edited by J. Mark Wittkofski and Theodore R. Reinhart, pp. 5–51. Special Publication 19. Archaeological Society of Virginia, Courtland.
- Garrow, Patrick
 1982 Archaeological Investigations on the Washington, D.C. Civic Center Site. Historic Preservation Office, Department of Housing and Community Development, Washington, D.C.
- Glaser, John D.
 1968 *Coastal Plain Geology of Southern Maryland*. Prepared for the 9th Annual Field Conference of the Atlantic Coastal Plain Geological Association. Maryland Geological Survey, Baltimore.
 2003 Geologic Map of Prince George's County, Maryland. 1:62,500. Maryland Geological Survey, Baltimore.
- Glassow, Michael
 1977 Issues in Evaluating the Significance of Archeological Resources. *American Antiquity* 42:413–420.
- Goodyear, Albert C.
 1989 A Hypothesis for the Use of Cryptocrystalline Raw Materials Among Paleoindian Groups of North America. In *Eastern Paleoindian Lithic Resource Use*, edited by Christopher J. Ellis and Jonathan C. Lothrop, pp. 1–9. Westview Press, Inc., Boulder.
- Graham, R.W., and E.L. Lundelius Jr.
 1984 Coevolutionary Disequilibrium and Pleistocene Extinctions. In *Quaternary Extinctions: A Prehistoric Revolution*, edited by P. S. Martin and R. G. Klein, pp. 223–249. University of Arizona Press, Tucson.
- Griffith, Dennis
 1794 Map of the State of Maryland Laid Down from an actual Survey of all the Principal Waters, Public Roads, and Divisions of the Counties Therein, Describing the Situation of the Cities, Towns, Villages, Houses of Worship and other Public Buildings, Furnaces, Forges, Mills, and other Remarkable Places. J. Wallace, Philadelphia.
- Hall, Richard L., and Earl D. Matthews
 1974 *Soil Survey of Charles County, Maryland*. U.S. Department of Agriculture in Cooperation with Maryland Agricultural Experiment Station, Soil Conservation Service.
- Hammett, Regina Combs
 1991 *History of St. Mary's County, Maryland 1634–1990*. Regina Combs Hammett, Ridge.
- Hopkins, G.M.
 1878 Atlas of Fifteen Miles around Baltimore, including Anne Arundel County, Maryland. Electronic document, <https://www.loc.gov/item/73151435/>.

- Hopkins, G.M.
1878 Atlas of Fifteen Miles around Washington, including the County of Prince George, Maryland. Electronic document, <https://www.loc.gov/item/76354156/>.
- Hughes, Elizabeth
1994 *Final Report: St. Mary's County Historic Sites Survey, Chaptico and Mechanicsville Districts*. Prepared for the Department of Planning and Zoning. Jefferson Patterson Park and Museum
2015 Diagnostic Artifacts in Maryland. Electronic document, <http://www.jefpat.org/diagnostic/index.htm>. Accessed October 2020.
- Justice, Noel D.
1987 *Stone Age Spear and Arrow Points of the Midcontinental and Eastern United States*. Indiana University Press, Bloomington, Indiana.
- Kaplan, J. Kim
2001 Beltsville Agricultural Research Center. *Agricultural Research Magazine*, October 2001, Vol. 49, No. 10, pp. 12–17. USDA Agricultural Research Services.
- Kellock, Katherine
1962 *Colonial Piscataway in Maryland*. Alice Ferguson Foundation, Accotink, Maryland.
- Kelly, Robert L., and Lawrence C. Todd
1988 Coming into the Country: Early Paleoindian Hunting and Mobility. *American Antiquity* 53:231–244.
- Kent, Barry C.
1984 *Susquehanna's Indians*. Anthropological Series, No. 6. The Pennsylvania Museum and Historical Commission, Harrisburg.
- Ketchum, William C., Jr.
1991 *American Stoneware*. Henry Holt & Company, New York.
- Kinsey, Fred W., III
1972 *Archeology of the Upper Delaware Valley: A Study of the Cultural Chronology of the Tocks Island Reservoir*. The Pennsylvania Historical and Museum Commission, Harrisburg.
- Kirby, Robert M., and Earle D. Matthews
1973 *Soil Survey of Anne Arundel County, Maryland*. U.S. Department of Agriculture in Cooperation with Maryland Agricultural Experiment Station, Soil Conservation Service.
- Kirby, Robert M., Earle D. Matthews, and Moulton A. Bailey
1967 *Soil Survey of Prince Georges County, Maryland*. U.S. Department of Agriculture in Cooperation with Maryland Agricultural Experiment Station, Soil Conservation Service.
- Lowery, Darrin, and Thomas Phillips
1994 The Meekins Neck Paleoindian Site Complex, Dorchester County, Maryland: A Development of a Paleoindian Settlement Model for the Delmarva Peninsula. *Maryland Archaeology* 30(2):29–36.
- Lucas, Fielding, Jr.
1822 Geographical, Statistical and Historical Map of Maryland. Philadelphia, H.C. Carey and I. Lea.
- Luckenbach, Al, Jessie Grow, and Shawn Sharpe
2010 Archaic Period Triangular Points from Pig Point, Anne Arundel County, Maryland. *Journal of Middle Atlantic Archaeology* 26:165–180.
- McAvoy, Joseph M.
1992 *Nottoway River Survey: Part I: Clovis Settlement Patterns: The 30 Year Study of a Late Ice Age Hunting Culture on the Southern Interior Coastal Plain of Virginia*. Archeological Society of Virginia Special Publication Number 28. Dietz Press, Richmond.
1994 *Archaeological Investigations of Two Stratified Dune Sites on the Nottoway River, Sussex County, Virginia*. Elevated Sand Sites in the Southeast. Symposium on disk, Austin.
- McAvoy, Joseph M., and Lynn D. McAvoy
1997 *Archaeological Investigations of Site 44SX202, Cactus Hill, Sussex County, Virginia*. Virginia Department of Historic Resources Research Report Series No. 8. Nottoway River Survey Archaeological Research, Sandston, Virginia. Report submitted to Virginia Department of Historic Resources, Richmond.
- McLearen, Douglas C.
1991 Late Archaic and Early Woodland Material Culture in Virginia. In *Late Archaic and Early Woodland Material Culture in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges. Special Publication 23, Archaeological Society of Virginia, Richmond.

- McNett, Charles W., and William M. Gardner
1975 Archaeology of the Lower and Middle Potomac. Manuscript on file, Department of Anthropology, American University.
- Maryland-National Capital Park & Planning Commission (M-NCPPC)
1992 Historic Sites and Districts Plan, Prince George's County, Maryland, Approved.
- Meltzer, David J.
1988 Late Pleistocene Human Adaptations in Eastern North America. *Journal of World Prehistory* 2:1–52.
- Meltzer, David J., and J. I. Mead
1983 The Timing of Late Pleistocene Mammalian Extinctions in North America. *Quaternary Research* 19:130–135.
- Miller, George L.
2000 Telling Time for Archaeologists. *Northeast Historical Archaeology* 29:1–22.
- Mouer, L. Daniel
1991 Formative Transition in Virginia. In *Late Archaic and Early Woodland Research in Virginia: A Synthesis*, edited by Theodore R. Reinhart and Mary Ellen N. Hodges, pp. 1–88. Special Publication 23. Archaeological Society of Virginia, Courtland, Virginia.
- NETROnline
2020 Historic Aerials Viewer. Electronic document, <https://www.historicaerials.com/viewer>. Accessed October 2020.
- Noël Hume, Ivor
1991 *A Guide to Artifacts of Colonial America*. Alfred A. Knopf, New York, New York.
- Payne, Ted M., and Kenneth Baumgardt
1990 *Phase I Archaeological Reconnaissance Survey, Muirkirk Commuter Rail Station, Prince Georges County, Maryland*. Prepared by MAAR Associates, Inc., Newark, Delaware. Submitted to Maryland Department of Transportation, State Railroad Administration.
- Pogue, Robert E. T.
1972 *Old Maryland Landmarks: A Pictorial Story of Interesting People, Places, and Events in Old Maryland*. Published by the author, Bushwood, Maryland.
- Potter, Stephen R.
1982 *An Analysis of Chicacoan Settlement Patterns*. Ph.D. dissertation, on file Department of Anthropology, University of North Carolina, Chapel Hill.
1993 *Commoners, Tribute, and Chiefs*. University Press of Virginia, Charlottesville.
- Reeve, Stuart A.
1992 Changes in Time: A Seriation Chronology for Southern Maryland Projectile Points. *Journal of Middle Atlantic Archaeology* 8: 107–137.
- Reger, James P., and Emery T. Cleaves
2008a Physiographic Map of Maryland. Maryland Geological Survey. Electronic document, <http://www.mgs.md.gov>, accessed October 2017.
2008b *Explanatory Text for the Physiographic Map of Maryland*. Maryland Geological Survey, Baltimore.
- Riley, Elihu Samuel
1905 *A History of Anne Arundel County in Maryland*. Kessinger Publishing Company.
- Shaffer, Gary D., and Elizabeth J. Cole
1994 *Standards and Guidelines for Archaeological Investigations in Maryland*. Maryland Historical Trust, Crownsville.
- Shoemaker, Sandy
2000 *Where Maryland Began: the Colonial History of St. Mary's County*. Orion Publications, St. Mary's City, Maryland.
- Shomette, Donald G.
2000 *Lost Towns of Tidewater Maryland*. Tidewater Publishers, Centreville, Maryland.
- Smith, Howard C., and R.C. Rose
1922 *Soil Survey of Charles County, Maryland*. Government Printing Office, Washington, D.C.
- Society for Historical Archaeology (SHA)
2020 *Historic Glass Bottle Identification & Information Website*. Electronic Document, <http://www.sha.org/bottle/>.
- South, Stanley
1977 *Method and Theory in Historical Archaeology*. Academic Press, New York, New York.

- Steponaitis, Laurie C.
 1983 *An Archaeological Study of the Patuxent Drainage, Volume 1*. Maryland Historical Trust Manuscript Series No. 24.
 1986 Prehistoric Settlement Patterns in the Lower Patuxent Drainage, Maryland. Ph.D. dissertation, State University of New York at Binghamton.
- Stephenson, Robert L., and Alice L.L. Ferguson
 1963 The Accokeek Creek Site: A Middle Atlantic Seaboard Culture Sequence. University of Michigan Museum of Anthropology, *Anthropological Papers No. 20*, Ann Arbor.
- Stewart, R. Michael
 1998 Archaic Triangles at the Abbott Farm National Landmark: Typological Implications for Prehistoric Studies in the Middle Atlantic Region. Paper presented at the Annual Meeting of the Middle Atlantic Archaeological Conference, Cape May, New Jersey.
- Stone, Gary Wheeler
 1987 Manorial Maryland. *Maryland Historical Magazine* 82(1):3–36.
- Sullivan III, Alan P., and Kenneth C. Rozen
 1985 Debitage Analysis and Archaeological Interpretation. *American Antiquity* 50:755–779.
- Tanner, William F.
 1993 An 8000-Year Record of Sea Level Change from Grain-Size Parameters: Data from Beach Ridges in Denmark. *The Holocene* 3:220–231.
- The Cannon Club
 2020 Our History. Electronic document, <http://www.thecannongolfclub.com/about-us/>, accessed 11 November 2020.
- United States Army Corps of Engineers (USACE)
 1944 Mount Vernon, Maryland/Virginia. 1:31,680 scale topographic map.
- United States Department of Agricultural (USDA) Natural Resources Conservation Service (NRCS)
 2019 Web Soil Survey. Electronic document, <https://websoilsurvey.sc.egov.usda.gov/App/HomePage.htm>. Accessed September 2020.
- United States Department of the Interior (USDOI)
 1991 National Register Bulletin 15: How to Apply the National Register Criteria for Evaluation. U.S. Department of the Interior, National Park Service, Washington, D.C.
- United States Geological Survey (USGS)
 1892 Laurel, Maryland. 1:62,500 scale topographic map.
 1895 Owensville, Maryland. 1:62,500 scale topographic map.
 1899 Patuxent, Maryland. 1:125,000 scale topographic map.
 1905 Owensville, Maryland. 1:62,500 scale topographic map.
 1907 Laurel, Maryland. 1:62,500 scale topographic map.
 1913 Indian Head, Maryland. 1:62,500 scale topographic map.
 1923 Indian Head, Maryland/Virginia. 1:48,000 scale planimetric map.
 1925 Indian Head, Maryland/Virginia. 1:62,500 scale planimetric map.
 1926 Laurel, Maryland. 1:62,500 scale topographic map.
 1934 Indian Head, Maryland/Virginia. 1:62,500 scale planimetric map.
 1939 Indian Head, Maryland/Virginia. 1:62,500 scale planimetric map.
 1942 Owensville, Maryland. 1:62,500 scale topographic map.
 1944 Bristol, Maryland. 1:31,680 scale topographic map.
 1945 Beltsville, Maryland. 1:31,680 scale topographic map.
 1949 Laurel, Maryland. 1:62,500 scale topographic map.
 1951 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.
 1956 Indian Head, Maryland/Virginia. 1:62,500 scale topographic map.
 1957 Bristol, Maryland. 1:24,000 scale topographic map.
 1965 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.
 1968 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.
 1971 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.
 1979 Bristol, Maryland. 1:24,000 scale topographic map.
 1981 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.
 1983 Mount Vernon, Maryland/Virginia. 1:24,000 scale topographic map.

- Waselkov, Gregory A.
1982 Shellfish Gathering and Shell Midden Archaeology. Ph.D. dissertation, University of North Carolina, Chapel Hill.
- Wesler, Kit, Gordon J. Fine, Dennis J. Pogue, Patricia Sternheimer, Aileen F. Button, E. Glyn Furguson, and Alvin H. Luckenbach
1981 *M/DOT Archaeological Resources Survey, Volume 1: Eastern Shore*. Manuscript Series No. 5. Maryland Historical Trust, Annapolis.
- Wheaton, Thomas R., and Patrick H. Garrow
1985 Acculturation and the Archaeological Record in the Carolina Lowcountry. In *The Archaeology of Slavery and Plantation Life*, edited by Theresa A. Singleton, pp. 239–259. Academic Press, Inc., Orlando, Florida.
- Whitehead, Donald R.
1973 Late-Wisconsin Vegetation Changes in Unglaciaded North America. *Quaternary Research* 3:621–631.
- Withington, C.F., and Froelick, A.J.
1974 Preliminary Geologic Map of the Beltsville Quadrangle, Prince George's, Montgomery, and Howard Counties, Maryland. U.S. Geological Survey Miscellaneous Field Studies MF-582, 2 sheets, scale 1:24,000.
- Wright, H.E.
1981 Vegetation East of the Rocky Mountains 18,000 Years Ago. *Quaternary Research* 15:113–125.

APPENDIX 1
ARTIFACT CATALOGS

Site	FS#	Bag	STP/ TR	Coord	North	East	Hor	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18ANX520-1	1	1	STP	7.01	500	500		I	0-0.7	1	1.1	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18ANX520-2	2	2	STP	7.15	500	500		I	0-1.6	1	2.3	2-3	lithic	debitage	primary	flake, fragment	rhyolite	tan	
18ANX520-3	3	3	SURF	GEN						1	20.7		historic	glass	base	container, bottle		amethyst tint	
18ANX520-3	3	3	SURF	GEN						1	159.0		historic	glass	base	container, hobble skirt bottle		aqua	embossed ANNAPOLIS MD. Machine made
18ANX520-3	3	3	SURF	GEN						1	736.7		historic	ceramic	partial	brick			likely semi-auto. 4" wide x 2" thick
18ANX520-3	3	3	SURF	GEN						1	22.5		historic	lithic	fragment	roofing shingle	slate		
18ANX520-3	3	4	STP	2.01	550	550		I	0-0.9	1	2.0		historic	ceramic	body	whiteware, undecorated	tableware, unid.		
18ANX520-3	3	5	STP		525	475		I	0-0.5	1	1.4		historic	ceramic	body	whiteware, undecorated	tableware, unid.		
18ANX520-3	3	5	STP		525	475		I	0-0.5	1	1.6		historic	glass	body	container, unid.		amethyst tint	molded
18ANX520-3	3	6	STP	10.02	500	450		I	0-0.1	1	5.4		historic	ceramic	body	pearlware, undecorated	tableware, unid.		
18ANX520-3	3	6	STP	10.02	500	450		I	0-0.1	1	1.2		historic	glass	body	container, bottle		olive green	
18ANX520-3	3	7	STP	11.02	500	500		I	0-0.4	1	1.2		historic	ceramic	body	creamware, factory slipped	tableware, hollowware		dark brown bands
18ANX520-3	3	7	STP	11.02	500	500		I	0-0.4	1	3.9		historic	glass	body	container, bottle		medium amber	hand blown
18ANX520-3	3	8	STP		500	525		I	0-0.9	1	5.1		historic	glass	body	container, unid.		aqua	
18ANX520-3	3	8	STP		500	525		I	0-0.9	1	0.5		historic	glass	fragment	window glass		aqua	
18ANX520-3	3	9	STP	12.02	500	550		I	0-0.5	1	2.2		historic	ceramic	body	whiteware, factory slip	tableware, hollowware		sky blue field
18ANX520-3	3	9	STP	12.02	500	550		I	0-0.5	2	49.0		historic	metal	fragment	unid. object	iron alloy		(1) sheet (1) bar stock
18ANX520-3	3	10	STP		475	475		I	0-0.8	1	14.1		historic	glass	base	container, panel bottle		colorless	Illinois Glass Co
18ANX520-3	3	10	STP		475	475		I	0-0.8	1	15.9		historic	ceramic	body	gray salt glazed stoneware, undecorated	utilitarian, hollowware		unwashed interior
18ANX520-3	3	11	STP		475	500		I	0-0.8	1	1.5		historic	glass	fragment	window glass		aqua	
18ANX520-3	3	11	STP		475	500		I	0-0.8	2	5.8		historic	glass	body	container, unid.		colorless	
18ANX520-3	3	12	STP		475	550		I	0-0.7	1	5.1		historic	ceramic	body	Rockingham type, molded	tableware, hollowware		
18ANX520-3	3	12	STP		475	550		I	0-0.7	1	2.7		historic	glass	body	container, unid.		colorless	
18ANX520-3	3	12	STP		475	550		I	0-0.7	1	0.9		historic	glass	body	glassware, enameled		red	floral
18ANX520-3	3	13	STP	11.03	450	500		I	0-0.4	1	13.1		historic	ceramic	rim	gray salt glazed stoneware, hand brushed blue cobalt	utilitarian, hollowware		
18ANX520-3	3	13	STP	11.03	450	500		I	0-0.4	1	8.0		historic	ceramic	rim	pearlware, blue shell edge	tableware, flatware		unscaloped impressed and embossed
18ANX520-3	3	13	STP	11.03	450	500		I	0-0.4	1	2.1		historic	ceramic	body	pearlware, undecorated	tableware, unid.		
18ANX520-3	3	14	STP		450	525		I	0-0.4	1	7.4		historic	metal	head-shank	nail, cut	iron alloy		machine made head, unpinched neck
18ANX520-3	3	14	STP		450	525		I	0-0.4	1	1.5		historic	ceramic	body	pearlware, medium blue transfer print	tableware, unid.		floral
18ANX520-3	3	14	STP		450	525		I	0-0.4	1	5.9		historic	ceramic	rim	pearlware, medium blue transfer print	tableware, flatware		floral
18ANX520-3	3	15	STP		425	425		I	0-0.2	1	2.7		historic	ceramic	base	whiteware, undecorated	tableware, unid.		
18ANX520-3	3	15	STP		425	425		I	0-0.2	1	0.5		historic	glass	fragment	window glass		aqua	
18ANX520-3	3	16	STP	10.04	400	450		II	0.4-2.3	1	0.9		historic	ceramic	body	pearlware, undecorated	tableware, unid.		
18ANX520-3	3	16	STP	10.04	400	450		II	0.4-2.3	1	10.6		historic	ceramic	body	gray salt glazed stoneware, undecorated	utilitarian, hollowware		
18ANX520-3	3	16	STP	10.04	400	450		II	0.4-2.3	1	1.2		historic	glass	body	container, unid.		aqua	
18ANX520-4	4	17	STP	31.12	500	500		I	0-0.9	1	0.4	1-2	lithic	debitage	tertiary	flake, complete	rhyolite	gray	
18ANX520-5	5	18	STP	39.02	500	500		I	0-0.7	1	1.3	2-3	lithic	debitage	tertiary	bipolar, flake fragment	quartz	white	
18ANX520-5	5	19	SURF		515	530		I	0-0	1	854.0	>5	lithic	debitage	secondary	core	quartzite	red	bipolar?
18ANX520-6	6	20	SURF		500	506		I	0-0	1	6.3	3-4	lithic	tool	complete	ppk, Small Savannah River	quartz	white	biconvex x-section, convex blade margins. 38.5mm long, 22.7mm wide and 8.5mm thick. Stem: 14.5mm wide, 12.2mm long.12.9mm neck. Asymmetrical and lightly concaved base
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	1	0.7		historic	glass	body	container, unid.		amber	
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	2	27.0		historic	glass	rim	container, canning jar		colorless	machine made, continuous thread
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	1	53.9		historic	glass	base	container, canning jar		colorless	machine made, stippled
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	16	116.2		historic	glass	body	container, canning jar		colorless	embossed body
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	1	31.6		historic	metal	top	aerosol can	iron alloy		
18AN1696	7	21	STP	5.09	550	500		I	0-1.7	1	12.6		historic	metal	top	container, beer can	aluminum		pull tab, Miller Lite
18AN1696	7	22	STP	5.10	550	550		III	1-2.4	1	0.5		historic	ceramic	body	pearlware, undecorated	tableware, unid.		

Site	FS#	Bag	STP/ TR	Coord	North	East	Hor	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18AN1696	7	22	STP	5.10	550	550		III	1-2.4	1	9.3		historic	glass	fragment	window glass		aqua	4.6mm thick
18AN1696	7	22	STP	5.10	550	550		III	1-2.4	1	2.7		historic	glass	fragment	laminated "safety" glass		aqua	
18AN1696	7	23	STP		525	500		I	0-0.9	1	23.1		historic	ceramic	fragment	brick			lightly swirled, poss. handmade
18AN1696	7	23	STP		525	500		I	0-0.9	1	2.4		historic	glass	body	container, bottle		dark olive	
18AN1696	7	24	STP		525	550		I	0-0.6	2	40.6		historic	ceramic	rim	terra cotta, flower pot			press molded, likely machine made
18AN1696	7	24	STP		525	550		I	0-0.6	1	1.1		historic	ceramic	body	creamware, undecorated	tableware, unid.		
18AN1696	7	25	STP	4.09	500	500		III	0.6-1.6	1	0.8		historic	ceramic	body	pearlware, undecorated	tableware, unid.		
18AN1696	7	25	STP	4.09	500	500		III	0.6-1.6	1	13.3		historic	ceramic	body	brown salt glazed stoneware, undecorated	utilitarian, hollowware		brown wash interior
18AN1696	7	25	STP	4.09	500	500		III	0.6-1.6	1	1.3		historic	glass	body	container, bottle		yellow amber	
18AN1696	7	25	STP	4.09	500	500		III	0.6-1.6	1	0.5		historic	synthetic	fragment	unid. object	plastic		gray marbling/mottling, Melmac?
18AN1696	7	26	STP		500	525		II	0.8-2.8	1	15.6		historic	ceramic	body	gray salt glazed stoneware, undecorated	utilitarian, hollowware		brown wash interior, part of neck remnant
18AN1696	7	26	STP		500	525		II	0.8-2.8	1	2.5		historic	ceramic	body	ironstone, undecorated	tableware, unid.		
18AN1696	7	26	STP		500	525		II	0.8-2.8	1	1.1		historic	ceramic	rim	yellowware, undecorated	utilitarian, hollowware		pale buff paste
18AN1696	7	26	STP		500	525		II	0.8-2.8	1	0.9		historic	ceramic	body	yellowware, undecorated	utilitarian, hollowware		pale buff paste
18AN1696	7	26	STP		500	525		II	0.8-2.8	1	1.3		historic	glass	body	container, unid.		aqua	
18AN1696	7	27	STP		475	525		II	1.2-3.0	1	14.3		historic	ceramic	body	whiteware, undecorated	tableware, unid.		
18AN1696	7	27	STP		475	525		II	1.2-3.0	1	1096.1		historic	ceramic	partial	brick			4" wide x 2" thick, lightly swirled, handmade
18AN1696	7	28	STP		450	500		II	1.0-1.6	1	2.4		historic	glass	body	container, unid.		aqua	
18AN1696	7	29	STP		450	525		II	0.8-2.2	1	0.6		historic	ceramic	rim	whiteware, undecorated	tableware, unid.		

Site	Bag	STP/ TR	Coord	North	East	Hor/ Lev	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/ Temper	Comments
18CH115X-1	10	STP	94			Ap	I	0-0.4	1	4.6	3-4	lithic	tool	complete	ppk, Calvert	quartz	white	biconvex x-section, convexed blade
18CH971	3	STP	23			A	I	0-1.7	2	3.8	2-3	lithic	debitage	primary	flake, broken	quartzite	brown gray	
18CH971	3	STP	23			A	I	0-1.7	1	4.0	3-4	lithic	debitage	secondary	flake, fragment	quartzite	pink gray	
18CH971	3	STP	23			A	I	0-1.7	1	0.1	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18CH971	3	STP	23			A	I	0-1.7	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18CH971	1	STP	24			A-E	I-II	0-0.8	2	0.8	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18CH971	1	STP	24			A-E	I-II	0-0.8	1	3.2	2-3	lithic	debitage	secondary	flake, fragment	quartzite	dark gray	
18CH971	1	STP	24			A-E	I-II	0-0.8	4	9.2	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	pink gray	
18CH971	1	STP	24			A-E	I-II	0-0.8	1	2.4	2-3	lithic	debitage	secondary	flake, fragment	quartz	white	
18CH971	1	STP	24			A-E	I-II	0-0.8	3	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18CH971	1	STP	24			A-E	I-II	0-0.8	8	6.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18CH971	1	STP	24			A-E	I-II	0-0.8	1	0.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18CH971	1	STP	24			A-E	I-II	0-0.8	4	0.6	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18CH971	2	STP	25			A-E	I-II	0-0.6	1	9.1	3-4	lithic	debitage	secondary	shatter	quartzite	dark gray	
18CH971	2	STP	25			A-E	I-II	0-0.6	1	6.4	3-4	lithic	tool	partial	ppk, lanceolate	quartzite	yellowish brown	biconvex x-section, convexed blade
18CH971	2	STP	25			A-E	I-II	0-0.6	1	13.7		historic	ceramic	body	gray salt glazed stoneware, undecorated	utilitarian, hollowware		unwashed interior
18CH971	4	STP	28			E	II	0.8-1.0	1	2.3	2-3	lithic	debitage	primary	flake, broken	quartzite	brown	
18CH971	20	STP	145			A	I	0-0.7	1	8.9	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	dark gray	
18CH971	20	STP	145			A	I	0-0.7	1	9.6	3-4	lithic	tool	fragment	biface, early stage	quartz	white	tool shatter
18CH971	21	STP	148			E	II	0.6-0.9	1	18.6		lithic	tool	secondary	retouched flake	quartz	white	
18CH971	22	STP	150			Ap	I	0-0.8	1	10.0		historic	glass	base	glassware, press molded, Depression Era		pale pink	
18CH971	22	STP	150			Ap	I	0-0.8	1	2.0		historic	glass	base	container, unid.		colorless	
18CH971	23	STP	151			Ap	I	0-1.4	1	4.6		historic	glass	body	container, unid.		7-UP green	
18CH971	23	STP	151			Ap	I	0-1.4	2	1.0		historic	glass	body	container, unid.		colorless	
18CH971	23	STP	151			Ap	I	0-1.4	2	1.8		historic	glass	fragment	window glass		aqua	
18CH972	29	TU	1			1	I	0-0.25	1	0.1		historic	glass	body	container, unid.		colorless	
18CH972	30	TU	1			2	I	0.25-0.5	2	275.3		lithic	fcr	fragment	fire cracked rock	quartzite	gray red	
18CH972	30	TU	1			2	I	0.25-0.5	2	312.0		historic	ceramic	fragment	brick			
18CH972	30	TU	1			2	I	0.25-0.5	2	260.6		historic	metal	fragment	unid. object	cast iron		thin hollow cast, poss. stove fragments
18CH972	30	TU	1			2	I	0.25-0.5	1	2.4		historic	metal	head-shank	nail, cut	iron alloy		
18CH972	30	TU	1			2	I	0.25-0.5	1	9.3		historic	glass	body	glassware, press molded		amethyst tint	
18CH972	30	TU	1			2	I	0.25-0.5	2	3.7		historic	glass	body	glassware, unid.		colorless	
18CH972	30	TU	1			2	I	0.25-0.5	3	7.3		historic	glass	body	container, unid.		colorless	
18CH972	30	TU	1			2	I	0.25-0.5	5	4.9		historic	glass	fragment	window glass		aqua	
18CH972	30	TU	1			2	I	0.25-0.5	2	1.3		historic	glass	fragment	container, canning jar lid liner		opaque white	
18CH972	30	TU	1			2	I	0.25-0.5	1	1.9		historic	ceramic	body	porcelain, molded	tableware, unid.		
18CH972	30	TU	1			2	I	0.25-0.5	1	0.9		historic	ceramic	body	whiteware, undecorated	tableware, unid.		
18CH972	31	TU	1			3	I	0.5-0.75	2	71.2		lithic	fcr	fragment	fire cracked rock	quartzite	pale red	
18CH972	31	TU	1			3	I	0.5-0.75	2	3.2		historic	glass	fragment	window glass		aqua	
18CH972	31	TU	1			3	I	0.5-0.75	1	0.2		historic	glass	body	container, unid.		aqua	
18CH972	31	TU	1			3	I	0.5-0.75	1	6.9		historic	glass	rim	container, bottle		colorless	machine made bead finish
18CH972	31	TU	1			3	I	0.5-0.75	1	0.8		historic	ceramic	rim	whiteware, undecorated	tableware, unid.		
18CH972	31	TU	1			3	I	0.5-0.75	1	1.4		historic	ceramic	body	whiteware, undecorated	tableware, unid.		fragmentary makers stamp
18CH972	31	TU	1			3	I	0.5-0.75	1	0.1		historic	glass	body	container, unid.		colorless	
18CH972	32	TU	1			4	I	0.75-0.9	1	8.4		lithic	fcr	fragment	fire cracked rock	quartzite	red	

Site	Bag	STP/ TR	Coord	North	East	Hor/ Lev	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/ Temper	Comments
18CH972	32	TU	1			4	I	0.75-0.9	1	0.8		historic	glass	fragment	window glass		aqua	
18CH972	32	TU	1			4	I	0.75-0.9	1	0.2		historic	synthetic	fragment	unid. object	plastic	opaque white	
18CH972	32	TU	1			4	I	0.75-0.9	1	12.6		historic	metal	complete	nail, wire	iron alloy		
18CH972	32	TU	1			4	I	0.75-0.9	1	3.7		historic	metal	shank	nail, wire	iron alloy		
18CH972	5	STP	52			Ap	I	0-0.8	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18CH972	6	STP	57			Ap	I	0-1.3	3	23.2		historic	lithic	fragment	coal slag			
18CH972	9	STP	58			Ap	I	0-1.3	1	6.3		historic	lithic	fragment	coal slag			
18CH972	7	STP	59			Ap	I	0.8-1.0	1	0.1		historic	ceramic	body	whiteware, undecorated	tableware, unid.		fragmentary spall
18CH972	8	STP	60			Ap	I	0-1.0	2	1.1		historic	glass	fragment	window glass		aqua	
18CH972	11	STP	114			Ap	I	0-0.95	1	49.9		historic	ceramic	fragment	brick			
18CH972	11	STP	114			Ap	I	0-0.95	6	6.2		historic	glass	fragment	window glass		aqua	
18CH972	12	STP	115			Ap	I	0.5-0.8	1	0.1		historic	glass	fragment	window glass		aqua	
18CH972	12	STP	115			Ap	I	0.5-0.8	1	0.3		historic	glass	body	container, unid.		colorless	
18CH972	13	STP	117			Ap	I	0-0.95	1	6.8		lithic	tool	complete	ppk, Calvert	quartz	white	biconvex x-section, straight blade
18CH972	13	STP	117			Ap	I	0-0.95	1	20.0		historic	glass	body	container, unid.		amethyst tint	
18CH972	14	STP	118			Ap	I	0-0.8	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18CH972	15	STP	120			Ap	I	0-1.15	1	7.9	2-3	lithic	debitage	secondary	bipolar core fragment	quartz	brown white	
18CH972	16	STP	121			Ap	I	0.6-1.0	17	278.7		historic	lithic	fragment	coal slag			
18CH972	17	STP	124			Ap	I	0-0.6	1	3.3		historic	glass	edge	container, canning jar lid liner		opaque white	
18CH972	18	STP	125			Ap	I	0.2-1.0	2	80.4		historic	ceramic	fragment	brick			soft
18CH972	18	STP	125			Ap	I	0.2-1.0	8	7.0		historic	glass	body	container, unid.		colorless	
18CH972	18	STP	125			Ap	I	0.2-1.0	1	8.6		historic	glass	base	container, unid.		colorless	machine made
18CH972	18	STP	125			Ap	I	0.2-1.0	1	5.4		historic	glass	body	container, unid.		amber	
18CH972	18	STP	125			Ap	I	0.2-1.0	1	0.1		historic	synthetic	fragment	phonograph record	shellac		
18CH972	19	STP	134			Ap	I	0-0.7	1	5.7		historic	glass	body	container, unid.		amethyst tint	embossed F L
18CH972	19	STP	134			Ap	I	0-0.7	1	0.4		historic	glass	fragment	window glass		aqua	
18CH972	24	STP	163			Ap	I	0-0.8	1	302.7		historic	metal	leg	stove leg	cast iron		hollow cast
18CH972	24	STP	163			Ap	I	0-0.8	1	4.7		historic	metal	shank	nail, wire	iron alloy		
18CH972	24	STP	163			Ap	I	0-0.8	7	9.6		historic	glass	fragment	window glass		aqua	
18CH972	24	STP	163			Ap	I	0-0.8	2	1.2		historic	glass	body	container, unid.		amber	
18CH972	24	STP	163			Ap	I	0-0.8	2	1.6		historic	glass	body	container, unid.		colorless	
18CH972	24	STP	163			Ap	I	0-0.8	1	0.1		historic	glass	body	container, unid.		aqua	
18CH972	25	STP	164			Ap	I	0-0.8	2	0.8		historic	glass	fragment	window glass		aqua	
18CH972	25	STP	164			Ap	I	0-0.8	1	0.1		historic	glass	rim	glassware, unid. drinking glass		colorless	
18CH972	26	STP	166			Ap	I	0-0.2	1	0.5		historic	glass	body	container, unid.		colorless	
18CH972	27	STP	167			Ap	I	0-1.2	1	236.1		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18CH972	27	STP	167			Ap	I	0-1.2	6	4.8		historic	glass	body	container, unid.		colorless	
18CH972	28	STP	168			Ap	I	0-0.5	1	9.2		historic	metal	complete	ammunition, bullet	copper		full jacket, knurled collar, impacted
18CH972	28	STP	168			Ap	I	0-0.5	1	0.5		historic	glass	fragment	window glass		aqua	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR111	98	STP	7.11	500	450		Fill	I	0-0.6	1	9.3		historic	ceramic	base	Bristol type stoneware, undecorated	utilitarian, hollowware		
18PR111	98	STP	7.11	500	450		Fill	I	0-0.6	1	0.3	1-2	lithic	debitage	secondary	flake, fragment	quartz	yellow white	
18PR111	98	STP	7.11	500	450		Fill	I	0-0.6	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	22.5		lithic	fcr	fragment	fire cracked rock	quartzite	gray red	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	91.1	>5	lithic	debitage	secondary	core, fragment	quartz	white	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	3.0	3-4	lithic	debitage	secondary	shatter	quartz	white	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	1.4	2-3	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	1.6	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered tan	
18PR111	99	STP	7.12	500	500		Ap	I	0-0.9	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	3.1	3-4	lithic	debitage	tertiary	flake, fragment	quartz	yellow white	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	5.2	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	1.3	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	3.5	3-4	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered tan	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	0.7	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR111	100	STP	7.12	500	500		Bw1	II	0.9-1.9	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR111	101	STP	7.12	500	500		Bw2	III	1.9-2.9	2	1.0	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR111	104	STP	7.14	500	600		Ap	I	0-0.75	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR111	102	STP		475	500		Ab2	VI	1.5-1.8	1	24.8	>5	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR111	103	STP		500	525		Ap2	Ib	0.9-1.2	1	2.3	2-3	lithic	tool	fragment	biface, unid.	quartz	white	biconvex x-section, symmetrical. 6.3mm thick, 14.7mm wide, missing distal
18PR111	105	surf		561	484		Ap	surf	0-0	1	12.7	4-5	lithic	debitage	primary	flake, complete	quartzite	tan	
18PR111	106	surf		529.5	500		Ap	surf	0-0	1	5.6	3-4	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	57	TU	1	500	534	1	Ap1	Ia	0-0.35	1	4.6	2-3	lithic	debitage	primary	flake, fragment	quartzite	gray white	
18PR113	57	TU	1	500	534	1	Ap1	Ia	0-0.35	1	1.4	1-2	lithic	debitage	primary	flake, fragment	quartzite	gray white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	11	559.9		lithic	fcr	fragment	fire cracked rock	quartzite		
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	178.0	>5	lithic	debitage	fragment	core, fragment	quartzite	red white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	31.7	>5	lithic	debitage	fragment	core, amorphous	quartz	gray	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	3	23.8	3-4	lithic	debitage	secondary	shatter	quartzite	pink white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	9.2	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	3	12.9	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	2	5.0	2-3	lithic	debitage	secondary	shatter	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	2	3.8	2-3	lithic	debitage	tertiary	flake, broken	quartzite	brown	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	24.2	>5	lithic	debitage	secondary	flake, broken	quartzite	red brown	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	6.3	4-5	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	5.2	3-4	lithic	debitage	primary	flake, broken	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	3.0	2-3	lithic	debitage	secondary	flake, fragment	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	1.3	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	1.8	2-3	lithic	debitage	primary	flake, fragment	quartzite	tan	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	3.3	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	6	2.7	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray brown	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	3	1.7	1-2	lithic	debitage	secondary	flake, fragment	quartzite	red	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	2	1.6	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	gray	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	4	2.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	58	TU	1	500	534	2	Ap2	Ib	0.35-0.6	1	0.2	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	6	227.8		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	2.2	2-3	lithic	tool	fragment	biface, late stage	quartzite	red	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	61.8	>5	lithic	debitage	primary	core, bipolar	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	84.4	>5	lithic	debitage	primary	core, fragment	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	22.4	4-5	lithic	debitage	primary	shatter	quartz	white	

Site	STP/			Depth					Cortex/		Artifact Type	Material/Ware	Color/Temper	Comments					
	Bag	TR	Coord	North	East	Level	Horizon	Strat	(ftbs)	Qty					Wt (g)	Size	Group	Class	Portion
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	3	13.5	2-3	lithic	debitage	secondary	shatter	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	2.0	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	0.2	1-2	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	8.1	4-5	lithic	debitage	primary	flake, fragment	quartzite	tan	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	4	7.1	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	pink white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	1.3	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	2	4.5	2-3	lithic	debitage	primary	flake, fragment	quartzite	red gray	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	7	4.6	1-2	lithic	debitage	primary	flake, fragment	quartzite	red gray	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	2	0.9	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	59	TU	1	500	534	3	Ap2	Ib	0.6-0.9	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	18	531.8		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	876.3		lithic	debitage	complete	cobble, tested	quartz	tan white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	2	21.3	4-5	lithic	debitage	secondary	shatter	quartzite	gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	2	12.5	3-4	lithic	debitage	secondary	shatter	quartzite	gray pink	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	2	3.5	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	4	9.8	2-3	lithic	debitage	secondary	shatter	quartzite	pink white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	3	4.4	1-2	lithic	debitage	secondary	shatter	quartzite	pink white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	1.4	1-2	lithic	tool	fragment	biface, unid.	quartzite	brown	biconvex x section, distal portion
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	15.1	>5	lithic	tool	fragment	biface, mid stage	quartz	pink yellow	lateral margin
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	4.8	3-4	lithic	debitage	primary	flake, complete	quartzite	brown	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	6.5	3-4	lithic	debitage	primary	bipolar flake, broken	quartz	pink white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	3.0	2-3	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	1.7	2-3	lithic	debitage	primary	flake, broken	quartzite	tan	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	0.6	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	9.7	4-5	lithic	debitage	primary	flake, fragment	quartzite	brown	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	3	5.1	2-3	lithic	debitage	secondary	flake, fragment	quartzite	red yellow	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	4	6.3	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray pink	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	3	2.1	1-2	lithic	debitage	primary	flake, fragment	quartzite	gray brown	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	14	7.3	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray brown	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	0.7	1-2	lithic	debitage	tertiary	flake, complete	rhyolite	weathered gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	2	0.9	1-2	lithic	debitage	tertiary	flake, broken	rhyolite	weathered gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	4	1.1	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	19.3	4-5	lithic	tool	tertiary	retouched flake	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	4.6	3-4	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	11.3	3-4	lithic	debitage	secondary	flake, broken	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	2.7	2-3	lithic	debitage	primary	flake, fragment	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	4.6	2-3	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	0.5	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	7	2.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	60	TU	1	500	534	4	Ap2	Ib	0.9-1.15	1	0.1	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	61	TU	1	500	534	5	Ap2	Ib	1.15-1.4	2	13.7		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	61	TU	1	500	534	5	Ap2	Ib	1.15-1.4	1	60.3	>5	lithic	debitage	fragment	core, fragment	quartzite	yellow white	
18PR113	61	TU	1	500	534	5	Ap2	Ib	1.15-1.4	1	4.9	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	yellow white	
18PR113	62	TU	1	500	534	5	Ap2	Ib	1.15-1.4	1	1.8	2-3	lithic	debitage	primary	flake, fragment	quartz	white	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	1	5.5	3-4	lithic	debitage	primary	flake, broken	quartzite	red	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	1	2.2	2-3	lithic	debitage	tertiary	flake, broken	quartzite	red	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	1	0.5	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	

Site	STP/		Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
	Bag	TR																	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	2	7.6	2-3	lithic	debitage	primary	flake, fragment	quartzite	yellow white	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	gray	
18PR113	63	TU	1	500	534	6	Bt1	II	1.4-1.7	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	10	STP	1.01	500	500		Bt2	III	2.17-2.5	1	1.6	2-3	lithic	debitage	tertiary	flake, complete	quartzite	gray	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	4	73.5		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	1.4	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	2.1	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	3.3	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	0.6	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	73	TU	2	504	494	3	Ap2	Ib	0.5-0.8	1	5.1	2-3	lithic	debitage	secondary	shatter	quartz	white	
18PR113	74	TU	2	504	494	4	Bt1	II	0.8-1.0	2	205.5		lithic	fcr	fragment	fire cracked rock	quartzite	red white	
18PR113	74	TU	2	504	494	4	Bt1	II	0.8-1.0	1	0.1	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	74	TU	2	504	494	4	Bt1	II	0.8-1.0	1	0.6	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	74	TU	2	504	494	4	Bt1	II	0.8-1.0	1	3.5	2-3	lithic	debitage	primary	shatter	quartz	white	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	2	18.7		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	1	3.7	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	1	3.4	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	1	0.6	1-2	lithic	debitage	secondary	flake, fragment	quartzite	yellow white	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	2	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	75	TU	2	504	494	5	Bt1	II	1.0-1.25	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	1.4	1-2	lithic	debitage	secondary	shatter	quartzite	red, brown	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	33.3	4-5	lithic	tool	secondary	retouched flake	quartzite	gray, brown	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	11.2	3-4	lithic	debitage	secondary	shatter	quartzite	brown	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	1307.1		lithic	tool	fragment	hammerstone/anvil	sandstone	brown	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	1.1	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	38.9	>5	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	76	TU	2	504	494	6	Bt1	II	1.25-1.50	1	20.8	4-5	lithic	debitage	tertiary	core, fragment	quartz	white	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	2	92.4		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	201.9	>5	lithic	debitage	secondary	core, amorphous	quartz	white	amorphous
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	7.1	4-5	lithic	debitage	tertiary	bipolar flake, broken	quartzite	gray	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	1.2	2-3	lithic	debitage	tertiary	flake, broken	quartzite	brown	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	0.6	2-3	lithic	debitage	tertiary	flake, broken	rhyolite	weathered gray	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	4.1	3-4	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	0.8	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	9.9	4-5	lithic	debitage	secondary	shatter	quartz	white	
18PR113	77	TU	2	504	494	7	Bt1	II	1.5-1.75	1	6.2	3-4	lithic	debitage	secondary	shatter	quartz	white	
18PR113	78	TU	2	504	494	8	Bt2	III	1.75-2.0	1	60.0		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR113	78	TU	2	504	494	8	Bt2	III	1.75-2.0	1	398.4	>5	lithic	tool	complete	hammerstone	quartzite	redrum	heavily pecked
18PR113	78	TU	2	504	494	8	Bt2	III	1.75-2.0	1	5.8	3-4	lithic	debitage	tertiary	flake, broken	rhyolite	weathered gray	
18PR113	78	TU	2	504	494	8	Bt2	III	1.75-2.0	1	5.8	3-4	lithic	debitage	primary	flake, retouched	quartz	red white	
18PR113	78	TU	2	504	494	8	Bt2	III	1.75-2.0	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	7.3		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	30.1	4-5	lithic	debitage	tertiary	shatter	quartz	yellow white	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	6.9	3-4	lithic	debitage	tertiary	flake, fragment	quartz	yellow white	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	1.6	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	4.0	2-3	lithic	debitage	secondary	flake, fragment	quartzite	brown	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	1	0.7	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR113	79	TU	2	504	494	9	Bt2	III	2.0-2.3	3	1.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	

Site	STP/			Depth					Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments	
	Bag	TR	Coord	North	East	Level	Horizon	Strat											(ftbs)
18PR113	80	TU	2	504	494	10	Bt2	III	2.25-2.50	1	4.6		lithic	fcr	fragment	fire cracked rock	quartzite		
18PR113	80	TU	2	504	494	10	Bt2	III	2.25-2.50	1	4.9	3-4	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	80	TU	2	504	494	10	Bt2	III	2.25-2.50	1	1.3	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	80	TU	2	504	494	10	Bt2	III	2.25-2.50	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	80	TU	2	504	494	10	Bt2	III	2.25-2.50	2	5.5	2-3	lithic	debitage	primary	shatter	quartz	white	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	36.8		lithic	fcr	fragment	fire cracked rock	quartzite	gray	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	4.8	3-4	lithic	tool	partial	ppk, small triangular	quartzite	gray	biconvex x-section, asymmetrical. 6.3mm thick, 26.9mm wide, missing distal
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	1.2	2-3	lithic	debitage	secondary	flake, complete	quartz	white	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	3	1.5	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartz	yellow white	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	14.3	3-4	lithic	debitage	tertiary	core, fragment	quartz	white	
18PR113	81	TU	2	504	494	11	Bt2	III	2.5-2.75	1	1.5	1-2	lithic	debitage	secondary	shatter	quartz	yellow white	
18PR113	82	TU	2	504	494	12	Bt2	III	2.80-3.0	1	1.7		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	82	TU	2	504	494	12	Bt2	III	2.80-3.0	1	1.5	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	82	TU	2	504	494	12	Bt2	III	2.80-3.0	1	0.5	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	82	TU	2	504	494	12	Bt2	III	2.80-3.0	1	3.2	2-3	lithic	debitage	tertiary	shatter	quartzite	gray	
18PR113	83	TU	2	504	494	13	Bt3	IV	3.0-3.25	2	0.3	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR113	83	TU	2	504	494	13	Bt3	IV	3.0-3.25	2	0.9	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	83	TU	2	504	494	13	Bt3	IV	3.0-3.25	2	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	yellow white	
18PR113	84	TU	2	504	494	15	Bt3	IV	3.5-3.75	1	1.2	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	84	TU	2	504	494	15	Bt3	IV	3.5-3.75	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	yellow white	
18PR113	7	STP		500	455		Ap	I	0-0.5	1	9.4	3-4	lithic	debitage	secondary	core, exhausted	quartzite	gray	amorphous
18PR113	8	STP		500	470		Ap	I	0-0.7	1	2.7	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	9	STP		500	485		Bt2	III	2.8	1	2.7	2-3	lithic	debitage	tertiary	flake, broken	quartzite	tan	
18PR113	9	STP		500	485		Bt2	III	2.8	1	1.0	1-2	lithic	debitage	tertiary	shatter	quartzite	tan	
18PR113	11	STP		515	500		Bt1	II	2.6-2.92	1	60.2	>5	lithic	debitage	fragment	core, amorphous	quartz	white	unifacial, from a large block
18PR113	11	STP		515	500		Bt1	II	2.6-2.92	1	1.4	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	tan	
18PR113	12	STP		500	515		Bt1	II	0.6-1.8	1	7.6	3-4	lithic	tool	secondary	graver	quartz	white	unifacial retouch along distal margins
18PR113	13	STP		500	530		Bt1	II	0.8-1.7	1	3.2	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	13	STP		500	530		Bt1	II	0.8-1.7	1	0.6	1-2	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR113	14	STP		500	545		Bt1	II	1-1.6	1	7.7	3-4	lithic	debitage	secondary	flake, complete	quartzite	tan	
18PR113	14	STP		500	545		Bt1	II	1-1.6	1	0.4	1-2	lithic	debitage	secondary	flake, fragment	quartzite	tan	
18PR113	14	STP		500	545		Bt1	II	1-1.6	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	tan	
18PR113	15	STP		500	560		Ap	I	0-0.67	1	6.6	3-4	lithic	tool	fragment	biface, late stage	quartzite	gray	distal portion, biconvex x-section
18PR113	15	STP		500	560		Ap	I	0-0.67	1	3.5		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR113	16	STP		500	560		Bt1	II	0.83-1.25	1	7.3	3-4	lithic	debitage	primary	shatter	quartz	white	
18PR113	17	STP		500	575		Ap	I	0-0.5	1	50.3	>5	lithic	debitage	secondary	flake, broken	quartzite	gray	
18PR113	17	STP		500	575		Ap	I	0-0.5	1	5.1	3-4	lithic	debitage	secondary	flake, broken	quartzite	gray	
18PR113	17	STP		500	575		Ap	I	0-0.5	1	1.1	1-2	lithic	debitage	secondary	flake, broken	quartz	white	
18PR113	17	STP		500	575		Ap	I	0-0.5	1	0.5	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	17	STP		500	575		Ap	I	0-0.5	1	0.4	1-2	lithic	debitage	primary	flake, fragment	quartz	white	
18PR113	17	STP		500	575		Ap	I	0-0.5	3	1.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	tan	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	0.3	1-2	lithic	debitage	tertiary	flake, broken	rhyolite	gray	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	2	0.8	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	0.5	1-2	lithic	debitage	tertiary	flake, broken	quartzite	white	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	1.5	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	28.3	>5	lithic	debitage	secondary	flake, broken	quartzite	gray	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR113	18	STP		500	575		Bt1	II	0.5-1.08	1	29.8	>5	lithic	debitage	tertiary	shatter	quartzite	pink white	
18PR113	19	STP		500	575		Bt2	III	1.08-1.67	4	593.5		lithic	fer	fragment	fire cracked rock	quartzite	red gray	
18PR113	19	STP		500	575		Bt2	III	1.08-1.67	1	5.3	3-4	lithic	debitage	secondary	flake, broken	quartz	white	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	0.3	1-2	lithic	debitage	tertiary	flake, broken	rhyolite	gray	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	2.8	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	2.5	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	2	0.6	1-2	lithic	debitage	secondary	flake, fragment	quartzite	gray tan	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	20	STP		500	575		Bt3	IV	1.67-3.0	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	21	STP		500	590		Bt1	I	~1.5-2.0	1	2.3	2-4	ceramic	sherd	body	unclassified sherd	n/a	sand	
18PR113	22	STP		500	590		Bt1	I	0-3.0	2	0.9	1-2	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	5.4	3-4	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	1.1	2-3	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	2	0.6	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	16.0	4-5	lithic	debitage	secondary	flake, fragment	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	5.7	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	3.9	3-4	lithic	debitage	tertiary	flake, fragment	rhyolite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	0.2	1-2	lithic	debitage	tertiary	flake, broken	rhyolite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	2.1	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	7	6.9	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	1.1	1-2	lithic	debitage	primary	flake, fragment	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	2	0.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	1	0.7	1-2	lithic	debitage	secondary	flake, fragment	quartz	white	
18PR113	22	STP		500	590		Bt1	I	0-3.0	2	6.0	2-3	lithic	debitage	primary	shatter	quartz	white	
18PR113	23	STP		500	605		Ap	I	0-0.33	1	0.4	1-2	lithic	debitage	tertiary	flake, complete	quartzite	gray	
18PR113	23	STP		500	605		Ap	I	0-0.33	1	0.1	1-2	lithic	debitage	tertiary	flake, broken	rhyolite	gray	
18PR113	23	STP		500	605		Ap	I	0-0.33	1	0.1	<1	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	6.7	4-5	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	10.8	4-5	lithic	debitage	tertiary	flake, complete	quartzite	gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	3.9	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	1.8	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	4.0	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	4	3.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	2	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR113	24	STP		500	605		Bt1	II	0.33-1.33	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	2.7	2-3	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	20.3	3-4	lithic	debitage	tertiary	core, exhausted	quartzite	gray	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	3.6	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	2.6	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	2	2.1	2-3	lithic	debitage	primary	flake, fragment	quartzite	red	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	2.2	2-3	lithic	debitage	secondary	flake, fragment	quartzite	white	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	0.5	1-2	lithic	debitage	secondary	flake, fragment	quartzite	red	
18PR113	25	STP		500	605		Bt1	II	1.33-2.33	1	0.9	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR113	85	STP		515	485		Bt1	II	0.4-2.75	1	0.8	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR113	85	STP		515	485		Bt1	II	0.4-2.75	2	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	85	STP		515	485		Bt1	II	0.4-2.75	2	0.2	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	86	STP		515	470		Bt2	III	2.5-3.6	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	yellow	
18PR113	87	STP		530	485		Bt1	II	0.5-1.55	2	127.4		lithic	fer	fragment	fire cracked rock	quartzite	red white	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR113	87	STP		530	485		Bt1	II	0.5-1.55	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red brown	
18PR113	87	STP		530	485		Bt1	II	0.5-1.55	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR113	88	STP		530	485		Bt2	III	1.55-3.4	1	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR113	88	STP		530	485		Bt2	III	1.55-3.4	2	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	red white	
18PR113	89	STP		530	470		Bt2	III	0.6-2	1	43.4	>5	lithic	debitage	primary	shatter	quartz	white	
18PR113	89	STP		530	470		Bt2	III	0.6-2	1	0.1	<1	lithic	debitage	tertiary	flake, broken	quartzite	red	
18PR113	89	STP		530	470		Bt2	III	0.6-2	1	2.2	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR113	89	STP		530	470		Bt2	III	0.6-2	1	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR113	89	STP		530	470		Bt2	III	0.6-2	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	281.1	>5	lithic	debitage	secondary	core, amorphous	quartzite	brown	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	86.3	>5	lithic	debitage	secondary	flake, broken	quartzite	brown	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	76.6	>5	lithic	debitage	tertiary	core, fragment	quartzite	brown	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	19.7	>5	lithic	debitage	secondary	flake, complete	quartzite	gray	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	9.3	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	0.5	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR113	90	STP		530	470		Bt3	IV	2-2.8	1	0.1	1-2	lithic	debitage	primary	flake, fragment	quartzite	yellow	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	5	91.3		lithic	fcr	fragment	fire cracked rock	quartzite	gray white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	3.7	3-4	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	11.5	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	14.2	4-5	lithic	debitage	secondary	flake, fragment	quartzite	red gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	13.1	3-4	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	10.5	3-4	lithic	debitage	secondary	flake, fragment	quartzite	red brown	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	3	4.5	2-3	lithic	debitage	secondary	flake, fragment	quartzite	red brown	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	3	13.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	4	11.5	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	17.1	4-5	lithic	debitage	primary	shatter	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	15.4	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	3.5	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	0.1	1-2	lithic	debitage	tertiary	flake, complete	chert	gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	0.8	1-2	lithic	debitage	tertiary	flake, broken	quartzite	red gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	7	4.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	0.3	1-2	lithic	debitage	secondary	flake, fragment	quartzite	yellow white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	24	14.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	3	0.3	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	3	3.9	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	65	TU	1	502	506	1	Ap	I	0-0.25	2	2.6	1-2	lithic	debitage	primary	shatter	quartz	yellow white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	15	350.7		lithic	fcr	fragment	fire cracked rock	quartzite	red white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	3	183.5	>5	lithic	debitage	secondary	core, amorphous	quartz	white	amorphous fragments
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	23.3	4-5	lithic	debitage	secondary	bipolar flake, broken	quartz	white	pos utilized
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	3	31.9	3-4	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	30.8	3-4	lithic	debitage	fragment	core, bipolar	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	20.7	3-4	lithic	debitage	fragment	core, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	9.3	2-3	lithic	tool	tertiary	retouched flake	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	7.7	3-4	lithic	tool	tertiary	retouched flake	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	14.6	4-5	lithic	debitage	tertiary	flake, broken	quartzite	red	pos utilized
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	5.1	3-4	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	9.0	3-4	lithic	debitage	tertiary	flake, broken	quartzite	gray	

Site	STP/		Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
	Bag	TR																	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	6.3	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	14.1	4-5	lithic	debitage	secondary	flake, fragment	quartzite	brown	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	3.6	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	19.2	3-4	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	8.6	3-4	lithic	debitage	primary	flake, fragment	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	1.0	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	1.2	2-3	lithic	debitage	secondary	flake, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	8	17.0	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	4.7	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	5	10.3	2-3	lithic	debitage	secondary	flake, fragment	quartzite	gray red	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	5	8.4	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	4.9	2-3	lithic	debitage	tertiary	shatter	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	5	22.1	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	0.4	1-2	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	0.1	<1	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	3	1.7	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	42	24.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	36	22.1	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	5	0.6	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	2	2.4	1-2	lithic	debitage	secondary	shatter	quartz	white	
18PR1190	66	TU	1	502	506	2	Bt1	II	0.25-.5	1	1.4	1-2	lithic	debitage	tertiary	shatter	quartzite	red white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	24	1569.9		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	44.2	>5	lithic	debitage	fragment	core, fragment	quartz	white	amorphous
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	30.0	4-5	lithic	debitage	fragment	core, fragment	quartz	white	amorphous
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	21.2	3-4	lithic	debitage	fragment	core, fragment	quartz	white	amorphous
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	3	44.7	4-5	lithic	debitage	secondary	shatter	quartzite	gray yellow	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	19.9	>5	lithic	debitage	primary	shatter	quartzite	yellow white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	2	15.9	3-4	lithic	debitage	fragment	core, fragment	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	23.7	>5	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	23.8	>5	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	2	28.2	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	9.7	4-5	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	3	13.9	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray yellow	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	4.1	3-4	lithic	debitage	primary	flake, fragment	quartzite	gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	2	3.5	2-3	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	7	15.7	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	3.6	2-3	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	14	36.2	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	2	10.4	3-4	lithic	debitage	secondary	shatter	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	8.0	3-4	lithic	debitage	secondary	core, exhausted	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	0.4	1-2	lithic	debitage	tertiary	flake, complete	quartzite	red	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	7	3.2	1-2	lithic	debitage	tertiary	flake, broken	quartzite	red gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	0.1	<1	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	33	20.9	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	16	3.0	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	33	14.3	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	1	3.0	2-4	ceramic	sherd	body	unclassified sherd	n/a	coarse sand	
18PR1190	67	TU	1	502	506	3	Bt2	III	0.5-0.6	5	2.9	<2	ceramic	sherd	residual	residual	n/a	residual	

Site	STP/			Depth					Cortex/					Artifact Type	Material/Ware	Color/Temper	Comments		
	Bag	TR	Coord	North	East	Level	Horizon	Strat	(ftbs)	Qty	Wt (g)	Size	Group					Class	Portion
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	32	430.8		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	2	50.4	>5	lithic	debitage	secondary	bipolar flake, broken	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	2	105.2	>5	lithic	debitage	secondary	core, amorphous	quartz	white	amorphous
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	16.7	>5	lithic	debitage	primary	flake, fragment	quartzite	brown	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	22.2	>5	lithic	debitage	secondary	flake, fragment	quartzite	brown	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	17.2	>5	lithic	debitage	tertiary	shatter	quartzite	gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	9.7	4-5	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	30.7	4-5	lithic	debitage	fragment	core, fragment	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	3	50.0	3-4	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	4.0	3-4	lithic	debitage	tertiary	shatter	quartz	gray white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	3	10.4	3-4	lithic	debitage	tertiary	flake, complete	quartzite	red yellow	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	4.5	3-4	lithic	debitage	tertiary	flake, broken	quartzite	yellow white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	4	29.7	3-4	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	4	31.6	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	5	8.7	2-3	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	9	19.9	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	16	26.8	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	3	5.9	2-3	lithic	debitage	primary	flake, fragment	quartzite	gray brown	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	2.8	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	4	14.0	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	4	2.4	1-2	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	4	1.2	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	69	32.5	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	58	23.9	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	5	0.7	<1	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	8	1.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	68	TU	1	502	506	4	Bt2	III	0.6-0.85	3	1.1	<2	ceramic	daub	fragment	fired clay	clay		
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	2	2.4	<2	ceramic	daub	fragment	fired clay			
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	4	31.7		lithic	fcr	fragment	fire cracked rock	quartzite	red white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	30.1	>5	lithic	debitage	secondary	bipolar flake, broken	quartzite	gray	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	9.6	>5	lithic	debitage	primary	flake, fragment	quartzite	gray	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	22.4	4-5	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	17.0	4-5	lithic	tool	tertiary	utilized flake	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	4.8	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	6	11.4	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray yellow	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	4	8.7	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	1.9	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	2.5	2-3	lithic	debitage	primary	shatter	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	2	14.8	3-4	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	2	6.1	2-3	lithic	debitage	secondary	shatter	quartzite	gray white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	2	0.4	1-2	lithic	debitage	tertiary	flake, complete	quartzite	brown	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	32	11.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray red	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	14	7.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	crystal quartz	colorless	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	4	0.5	<1	lithic	debitage	tertiary	flake, fragment	quartzite	gray brown	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	6	1.2	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	69	TU	1	502	506	5	Bt2	III	0.85-1.15	1	1.3	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	70	TU	1	502	506	6	Bt2	III	1.15-1.4	1	0.2	1-2	lithic	debitage	tertiary	flake, broken	quartzite	red	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR1190	70	TU	1	502	506	6	Bt2	III	1.15-1.4	1	13.8	4-5	lithic	debitage	secondary	flake, fragment	quartzite	gray brown	
18PR1190	70	TU	1	502	506	6	Bt2	III	1.15-1.4	2	3.2	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray yellow	
18PR1190	70	TU	1	502	506	6	Bt2	III	1.15-1.4	6	2.7		lithic	debitage	tertiary	flake, fragment	quartzite	red white	
18PR1190	70	TU	1	502	506	6	Bt2	III	1.15-1.4	1	0.1	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	71	TU	1	502	506	7	Bt2	III	1.4-1.65	1	0.1	<1	lithic	debitage	tertiary	flake, broken	quartzite	red brown	
18PR1190	71	TU	1	502	506	7	Bt2	III	1.4-1.65	5	10.6	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray white	
18PR1190	71	TU	1	502	506	7	Bt2	III	1.4-1.65	1	3.4	2-3	lithic	debitage	primary	flake, fragment	quartzite	yellow white	
18PR1190	71	TU	1	502	506	7	Bt2	III	1.4-1.65	5	1.8	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red yellow gray	
18PR1190	72	TU	1	502	506	8	Bt2	III	1.65-1.8	1	2.4		lithic	fcf	fragment	fire cracked rock	quartzite	red	
18PR1190	72	TU	1	502	506	8	Bt2	III	1.65-1.8	3	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray white	
18PR1190	72	TU	1	502	506	8	Bt2	III	1.65-1.8	1	0.8	1-2	lithic	debitage	tertiary	flake, complete	quartz	white	
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	3.9	3-4	lithic	tool	fragment	biface, late stage	quartzite	white	distal portion, biconvex x-section
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	53.9	>5	lithic	debitage	fragment	core, exhausted	quartzite	red	amorphous
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	2.5	2-3	lithic	debitage	tertiary	flake, broken	quartzite	gray	
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	11.0	4-5	lithic	debitage	secondary	flake, fragment	quartzite	white	
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	1.7	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	1	STP	2.02	500	500		Bt1	II	0.33-1.0	4	2.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	pink gray	
18PR1190	2	STP		510	500		Ap	I	0-0.42	1	13.6	3-4	lithic	debitage	fragment	core, exhausted	quartzite	red	conical
18PR1190	2	STP		510	500		Ap	I	0-0.42	2	1.0	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	2	STP		510	500		Ap	I	0-0.42	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	1	24.4	>5	lithic	debitage	primary	flake, broken	quartzite	gray	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	1	0.1	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	1	4.3	3-4	lithic	debitage	primary	flake, fragment	quartzite	brown	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	4	7.1	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	2	2.3	2-3	lithic	debitage	tertiary	flake, fragment	quartz	pink white	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	7	1.8	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	2	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	4	0.7	<1	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR1190	3	STP		510	500		Bt1	II	0.42-0.92	1	19.8	3-4	lithic	debitage	primary	shatter	quartz	white	
18PR1190	4	STP		510	500		Bt2	III	0.92-1.42	5	1.9	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	4	STP		510	500		Bt2	III	0.92-1.42	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR1190	4	STP		510	500		Bt2	III	0.92-1.42	1	1.3	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	5	STP		510	520		Ap	I	0.58	1	2.9	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	5	STP		510	520		Ap	I	0.58	1	0.6	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	5	STP		510	520		Ap	I	0.58	1	11.1	4-5	lithic	tool	complete	ppk, Orient Fishtail	quartzite	gray	biconvex x-section, convex blade margins. 46.5mm long, 24.1mm wide and 11.2mm thick. missing lobe
18PR1190	6	STP		510	520		Bt1	II	0.58-1.18	1	2.7	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	32	STP		510	485		Bt2	III	0.8-1.3	1	1.2	2-3	lithic	debitage	primary	flake, broken	quartzite	gray	
18PR1190	32	STP		510	485		Bt2	III	0.8-1.3	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	32	STP		510	485		Bt2	III	0.8-1.3	1	0.3	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR1190	33	STP		510	450		Bt1	II	0.3-0.55	1	32.6	>5	lithic	debitage	tertiary	flake, fragment	quartzite	red brown	
18PR1190	34	STP		510	425		Bt1	II	0.3-0.6	1	8.1	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	34	STP		510	425		Bt1	II	0.3-0.6	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	35	STP		510	400		Ap	I	0-0.6	1	6.0	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	yellow white	
18PR1190	35	STP		510	400		Ap	I	0-0.6	1	19.6	4-5	lithic	debitage	primary	shatter	quartzite	gray	
18PR1190	36	STP		510	400		Bt1	II	.65-1.0	1	1.9	1-2	lithic	debitage	primary	shatter	quartz	white	
18PR1190	36	STP		510	400		Bt1	II	.65-1.0	4	68.1		lithic	fcf	fragment	fire cracked rock	quartzite	red gray	some water worn cobbles

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR1190	36	STP		510	400		Bt1	II	.65-1.0	1	138.8		lithic	fcr	fragment	fire cracked rock	quartz	red white	
18PR1190	36	STP		510	400		Bt1	II	.65-1.0	1	11.2	4-5	lithic	tool	partial	ppk, Savannah River	quartz	white	biconvex x-section, convex blade margins. 46.7mm long*, 24.4mm wide and 8.6mm thick. Stem: 14.1mm wide, 10.5mm long. missing distal
18PR1190	37	STP		510	400		Bt2	III	1.0-2.0	6	103.6		lithic	fcr	fragment	fire cracked rock	quartzite	red white	
18PR1190	37	STP		510	400		Bt2	III	1.0-2.0	1	0.2	1-2	lithic	debitage	tertiary	flake, broken	quartz	white	
18PR1190	37	STP		510	400		Bt2	III	1.0-2.0	2	0.6	1-2	lithic	debitage	primary	flake, fragment	quartzite	red white	
18PR1190	37	STP		510	400		Bt2	III	1.0-2.0	1	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red white	
18PR1190	37	STP		510	400		Bt2	III	1.0-2.0	1	1.3	1-2	lithic	debitage	tertiary	shatter	quartzite	gray	
18PR1190	38	STP		495	400		Bt1	II	0.2-0.9	6	268.9		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR1190	38	STP		495	400		Bt1	II	0.2-0.9	1	113.0	>5	lithic	debitage	primary	shatter	quartz	red white	cobble fragment (fresh break) mended
18PR1190	38	STP		495	400		Bt1	II	0.2-0.9	1	16.0	4-5	lithic	debitage	secondary	bipolar flake, broken	quartzite	gray	pos utilized
18PR1190	38	STP		495	400		Bt1	II	0.2-0.9	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	39	STP		525	400		Ap	I	0-0.4	2	178.1		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR1190	39	STP		525	400		Ap	I	0-0.4	1	1.4	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	39	STP		525	400		Ap	I	0-0.4	1	49.1	>5	lithic	tool	fragment	biface, early stage	quartz	white	biconvex x section, distal portion
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	13	162.6		lithic	fcr	fragment	fire cracked rock	quartzite	red brown	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	26.8	4-5	lithic	debitage	fragment	core, fragment	quartzite	gray white	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	2	7.7	2-3	lithic	debitage	tertiary	shatter	quartzite	gray brown	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	3	6.2	2-3	lithic	debitage	secondary	shatter	quartz	white	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	2.1	2-3	lithic	tool	complete	ppk, triangular	quartz	white	biconvex x-section, straight blade margins. 22.2mm long, 20.2mm wide* and 5.7mm thick. Missing lobe
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	2.8	2-4	lithic	ceramic	body	unclassified sherd	soapstone	red	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	4	7.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red brown	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	2.0	2-3	lithic	debitage	primary	flake, fragment	quartzite	red	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	1.9	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	0.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	40	STP		525	400		Bt1	II	0.4-1.1	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	41	STP		525	400		Bt2	III	1.1-3.1	2	30.3		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR1190	41	STP		525	400		Bt2	III	1.1-3.1	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	41	STP		525	400		Bt2	III	1.1-3.1	1	0.5	1-2	lithic	debitage	tertiary	flake, broken	quartzite	yellow white	
18PR1190	42	STP		525	385		Ap	I	0-0.5	8	94.8		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR1190	42	STP		525	385		Ap	I	0-0.5	1	2.1		lithic	fcr	fragment	fire cracked rock	quartz	red white	
18PR1190	42	STP		525	385		Ap	I	0-0.5	1	32.3	>5	lithic	tool	fragment	biface, mid stage	quartz	white	lateral margin
18PR1190	42	STP		525	385		Ap	I	0-0.5	2	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray brown	
18PR1190	42	STP		525	385		Ap	I	0-0.5	2	1.3	1-2	lithic	debitage	primary	flake, fragment	quartzite	gray brown	
18PR1190	42	STP		525	385		Ap	I	0-0.5	1	0.8	1-2	lithic	debitage	secondary	shatter	quartz	white	
18PR1190	43	STP		525	385		Bt1	II	0.5-1.0	7	639.1		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR1190	43	STP		525	385		Bt1	II	0.5-1.0	1	3.8	2-3	lithic	debitage	tertiary	flake, broken	quartzite	brown	
18PR1190	43	STP		525	385		Bt1	II	0.5-1.0	2	3.2	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	43	STP		525	385		Bt1	II	0.5-1.0	3	2.6	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	43	STP		525	385		Bt1	II	0.5-1.0	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	44	STP		525	385		Bt2	III	1.0-2.1	1	11.9		lithic	fcr	fragment	fire cracked rock	quartzite	red	
18PR1190	45	STP		525	370		Ap	I	0-0.45	5	90.2		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR1190	45	STP		525	370		Ap	I	0-0.45	2	4.0	2-3	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	45	STP		525	370		Ap	I	0-0.45	1	1.5	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	45	STP		525	370		Ap	I	0-0.45	1	0.6	1-2	lithic	debitage	primary	flake, fragment	quartzite	brown	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR1190	45	STP		525	370		Ap	I	0-0.45	1	0.2	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	4	154.4		lithic	fcr	fragment	fire cracked rock	quartzite	gray red	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	1	17.2	>5	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	1	1.3	2-3	lithic	debitage	primary	flake, fragment	quartzite	gray	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	1	1.7	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	6	1.9	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	46	STP		525	370		Bt1	II	0.45-1.2	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartzite	brown	
18PR1190	47	STP		540	370		Ap	I	0-0.35	1	170.2	>5	lithic	debitage	primary	core, fragment	quartzite	brown	
18PR1190	47	STP		540	370		Ap	I	0-0.35	1	9.0	4-5	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR1190	47	STP		540	370		Ap	I	0-0.35	2	1.1	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	47	STP		540	370		Ap	I	0-0.35	1	0.3	1-2	lithic	debitage	primary	flake, fragment	rhyolite	gray	
18PR1190	48	STP		540	370		Bt1	II	0.35-0.8	4	176.0		lithic	fcr	fragment	fire cracked rock	quartzite	gray red	
18PR1190	48	STP		540	370		Bt1	II	0.35-0.8	1	12.1	4-5	lithic	debitage	primary	flake, fragment	quartzite	gray	
18PR1190	48	STP		540	370		Bt1	II	0.35-0.8	1	2.2	2-3	lithic	debitage	secondary	flake, fragment	quartzite	gray	
18PR1190	48	STP		540	370		Bt1	II	0.35-0.8	2	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	48	STP		540	370		Bt1	II	0.35-0.8	2	1.5	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	1	23.5	>5	lithic	tool	fragment	biface, mid stage	quartzite	red	biconvex x section, mid portion
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	1	22.3	>5	lithic	debitage	tertiary	flake, broken	quartzite	red white	
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	1	4.5	3-4	lithic	tool	tertiary	retouched flake	quartz	white	
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	2	3.3	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	1	0.4	1-2	lithic	debitage	secondary	flake, fragment	quartzite	white	
18PR1190	49	STP		540	355		Bt1	II	0.4-0.7	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	50	STP		540	355		Bt2	III	0.7-2.1	1	1.5	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	51	STP		540	340		Ap	I	0-0.3	4	130.3		lithic	fcr	fragment	fire cracked rock	quartzite	red gray	
18PR1190	51	STP		540	340		Ap	I	0-0.3	1	19.7	4-5	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	51	STP		540	340		Ap	I	0-0.3	3	1.1	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	51	STP		540	340		Ap	I	0-0.3	2	0.8	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	51	STP		540	340		Ap	I	0-0.3	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red	
18PR1190	51	STP		540	340		Ap	I	0-0.3	1	0.1	<1	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	51	STP		540	340		Ap	I	0-0.3	1	26.3	>5	lithic	tool	complete	ppk, Savannah River	quartzite	red gray	biconvex x-section, convex blade margins. 59.6mm long, 38.9mm wide and 12.5mm thick. Stem: 24.9mm wide, 15.9mm long.
18PR1190	52	STP		540	340		Bt2	III	0.6-1.4	2	112.3		lithic	fcr	fragment	fire cracked rock	quartzite	gray red	
18PR1190	52	STP		540	340		Bt2	III	0.6-1.4	1	2.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	red white	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	9	225.0		lithic	fcr	fragment	fire cracked rock	quartzite	red tan	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	1	28.4	>5	lithic	tool	secondary	retouched flake	quartz	gray white	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	1	2.1	2-3	lithic	debitage	tertiary	flake, fragment	quartz	gray white	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	3	1.2	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	red gray	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	1	0.4	1-2	lithic	debitage	tertiary	flake, fragment	quartz	white	
18PR1190	53	STP		540	340		Bt1	II	0.3-0.6	1	25.9	4-5	lithic	debitage	fragment	core, fragment	quartz	white	
18PR1190	54	STP		555	340		Ap	I	0-0.25	1	0.9	1-2	lithic	debitage	tertiary	flake, broken	quartzite	red gray	
18PR1190	54	STP		555	340		Ap	I	0-0.25	1	0.3	1-2	lithic	debitage	primary	flake, fragment	quartzite	tan	
18PR1190	55	STP		555	340		Bt1	II	0.25-0.5	1	73.3		lithic	fcr	fragment	fire cracked rock	quartzite	tan	
18PR1190	55	STP		555	340		Bt1	II	0.25-0.5	1	1.1	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	7	592.5		lithic	fcr	fragment	fire cracked rock	quartzite	brown	
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	11.3	2-3	lithic	debitage	tertiary	core, exhausted	quartz	white	amorphous
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	1.8	2-3	lithic	debitage	tertiary	flake, broken	quartzite	brown	
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	3.1	2-3	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	0.1	1-2	lithic	debitage	tertiary	flake, fragment	rhyolite	weathered gray	

Site	Bag	STP/ TR	Coord	North	East	Level	Horizon	Strat	Depth (ftbs)	Qty	Wt (g)	Size	Group	Class	Cortex/ Portion	Artifact Type	Material/Ware	Color/Temper	Comments
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	1.1	2-3	lithic	debitage	secondary	shatter	quartz	white	
18PR1190	56	STP		555	325		Bt1	II	0.4-0.75	1	0.6	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR1190	64	surf		500	506		Ap			1	18.6	4-5	lithic	tool	tertiary	retouched flake	quartz	white	
18PR1191	26	STP		500	500		C2	III	1.7-2.6	1	1.5	2-3	lithic	tool	partial	biface, late stage	rhyolite	gray	basal portion, biconvex x-section. 12.6mm wide, 5mm thick. Lanceolate form
18PR1191	27	STP		525	500		Ap	I	0-1.0	1	3.6	3-4	lithic	debitage	primary	shatter	quartzite	brown	
18PR1191	27	STP		525	500		Ap	I	0-1.0	1	1.7	1-2	lithic	debitage	primary	shatter	quartzite	brown	
18PR1191	28	STP		500	475		Ap	I	0-0.9	1	1.2	1-2	lithic	debitage	primary	shatter	quartzite	brown	
18PR1191	28	STP		500	475		Ap	I	0-0.9	1	0.3	1-2	lithic	debitage	tertiary	shatter	quartz	white	
18PR1191	29	STP		500	475		Cg1	II	0.9-2.0	1	2.1	2-3	lithic	debitage	primary	shatter	quartzite	gray	
18PR1191	29	STP		500	475		Cg1	II	0.9-2.0	1	0.8	1-2	lithic	debitage	tertiary	shatter	quartzite	brown	
18PR1192	93	STP	6.10	500	500		Bt1	II	0.55-1.5	1	1.6	2-3	lithic	debitage	tertiary	shatter	quartz	white	
18PR1192	94	STP		500	475		Bt1	II	0.55-1.0	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	white	
18PR1192	95	STP		500	475		Bt2	III	1-1.7	1	43.3	>5	lithic	debitage	tertiary	shatter	quartzite	red	
18PR1192	95	STP		500	475		Bt2	III	1-1.7	3	5.5	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PR1192	95	STP		500	475		Bt2	III	1-1.7	2	0.7	1-2	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PRX284-1	30	STP	2.12	500	500		Bw2	III	0.95-1.55	1	0.6	1-2	lithic	debitage	tertiary	flake, fragment	jasper	brown	
18PRX284-1	31			500	550		Ap	I	0-1.0	1	0.8	1-2	lithic	debitage	primary	flake, fragment	quartz	white	
18PRX284-2	91	STP	6	500	500		Bt1	II	0.4-1.5	1	0.7	1-2	lithic	debitage	tertiary	flake, complete	rhyolite	weathered gray	
18PRX284-2	92	STP		500	475		Ap	I	0-0.5	1	12.9		lithic	fcr	fragment	fire cracked rock	quartzite	red white	
18PRX284-3	96	STP	5.14	500	500		Bt1	II	0.4-2.4	1	9.9	3-4	lithic	debitage	primary	flake, fragment	quartzite	brown	
18PRX284-3	97	STP		525	500		Bt2	III	2.2	1	1.0	2-3	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PRX284-4		STP	1.07				Fill	III	2.0	1	9.1		historic	metal	shank	nail, cut	iron alloy		heavily encrusted
18PRX284-5		STP	6.17				Fill	II	0.3-0.95	1	1.3	1-2	lithic	debitage	tertiary	flake, complete	schist	gray	
18PRX284-6		STP	3.09				Fill	I	0-0.8	1	2.3	2-3	lithic	tool	fragment	biface, unid.	quartz	white	tool shatter, single lateral margin showing
18PRX284-6		STP	3.12				Fill	III	1.7-1.9	1	0.6		historic	glass	body	container, unid.		colorless	stippled
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	1	28.8		historic	glass	base	container, bottle		green	stippled
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	1	4.0		historic	glass	neck	container, bottle		light green	stippled; "...EPOSI..."
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	2	4.2		historic	glass	body	container, unid.		green	
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	2	44.3		historic	glass	body	container, unid.		colorless	
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	1	0.5		historic	tar	fragment	solidified tar		black	
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	1	33.4	4-5	lithic	debitage	fragment	core, amorphous	quartzite	gray	
18PRX284-6		STP	3.13				Fill	II	0.5-1.6	1	53.6	>5	lithic	fcr	fragment	fire cracked rock	quartzite	gray	
18PRX284-6		STP	3.14				Fill	II	0.5-1.0	1	0.9		historic	glass	body	container, unid.		colorless	
18PRX284-6		STP	3.14				Fill	II	0.5-1.0	1	1.4	2-3	lithic	debitage	tertiary	flake, complete	quartzite	yellow	
18PRX284-6		STP	3.14				Fill	II	0.5-1.0	1	7.6	3-4	lithic	debitage	tertiary	flake, fragment	quartzite	gray	
18PRX284-6		STP	3.15				Fill	III	1.6-2.3	1	0.5		historic	glass	body	container, unid.		green	
18PRX284-6		STP	3.15				Fill	III	1.6-2.3	1	2.1	2-3	lithic	debitage	tertiary	shatter	quartz	gray	
18PRX284-6		STP	3.17				Fill	I	0-0.2	1	1.7		historic	glass	body	container, unid.		colorless	
18PRX284-6		STP	3.17				Fill	I	0-0.2	1	0.1	1-2	lithic	debitage	tertiary	flake, complete	quartz	gray	
18PRX284-6		STP	3.18				Fill	II	0.3-2.2	1	2.4		historic	glass	body	container, unid.		green	
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	1.1		historic	brick	fragment	brick		red	
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	0.1		historic	plastic	fragment	plastic, polychrome transfer print		white	
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	1.0		historic	glass	body	container, bottle		brown	"...LITZ" [SCHLITZ?]
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	4	8.7		historic	glass	body	container, unid.		colorless	
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	6.7		historic	glass	neck	container, unid.		colorless	three columns of diagonal slashes
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	2.8		historic	ceramic	body	earthenware, undecorated	tableware, unid.		green glaze; tile?
18PRX284-7		STP	FB5 1.1				Fill	V	1.7-3.4	1	3.8		historic	ceramic	body	earthenware, undecorated	tableware, unid.		black glaze; tile?
18PRX284-7		STP	FB5 2.1				Fill	II	3-3.6	1	111.9		historic	metal	complete	hook	iron alloy		

APPENDIX 2
SITE FORMS

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18AN1696

County: Anne Arundel

A. DESIGNATION

1. Site Name: Cabin Branch FS-7
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Late 19th to late 20th century domestic artifact scatter
4. Prehistoric _____ Historic X Unknown _____
5. Terrestrial X Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Bristol, MD (For underwater sites)
NOAA Chart No.: _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 8
8. Physiographic Province (check one):
 Allegany Plateau Lancaster/Frederick Lowland
 Ridge and Valley Eastern Piedmont
 Great Valley X Western Shore Coastal Plain
 Blue Ridge Eastern Shore Coastal Plain
9. Major Watershed/Underwater Zone (see instructions for map and list): Patuxent River

C. ENVIRONMENTAL DATA

10. Nearest Water Source: Wilson Owens Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
 Ocean X Freshwater Stream/River
 Estuarine Bay/Tidal River Freshwater Swamp
 Tidal or Marsh Lake or Pond
 Spring
12. Distance from closest surface water: 40 meters (or 130 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: MaD

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input checked="" type="checkbox"/> Hillslope	<input checked="" type="checkbox"/> Other:
	<u>Knoll</u>

18. Slope: 2-10%

19. Elevation: 37 meters (or 122 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input checked="" type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other:

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input checked="" type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other:

23. Extent of disturbance:

☐ Minor (0-10%)
☐ Moderate (10-60%)
☒ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

Shovel tests within the ephemeral drainage contained an Ap horizon (0–0.4 fbs) of dark yellowish brown (10YR 4/4) sandy loam overlying a Bt horizon (0.4–1.0 fbs) of yellowish brown (10YR 5/4) sandy clay loam underlain by an Ab horizon (1.0–2.4 fbs) of yellowish brown (10YR 5/6) sandy loam colluvium underlain by a 2Bt horizon (2.4–3.4 fbs) of brownish yellow (10YR 6/8) mottled with light gray (10YR 7/2) loamy sand; in an auger the 2Bt horizon continued to a depth of 5.0 fbs, followed by a 2BCg horizon (5.0–5.8 fbs) of yellowish brown (10YR 5/4) loam, and finally a 2Cg horizon (5.8–9.0+ fbs) of brownish yellow (10YR 6/8) sandy clay mottled with light gray (10YR 7/2) clay that increased with depth. Shovel tests outside of the ephemeral drainage contained an Ap horizon (0–0.6 fbs) of dark yellowish brown (10YR 4/4) sandy clay loam underlain by a Bt horizon (0.6–1.1 fbs) of brownish yellow (10YR 6/8) sandy clay overlying a Cg horizon (1.1–1.6+ fbs) of pale yellow (5Y 8/2) mottled with light gray (2.5Y 7/1) clay. These soils appear consistent with an intersection of the higher elevation Marr-Dodon complex (MaD; 10–15% slopes) and the lower elevation Widewater and Issue soils (WBA; 0–2% slopes) that are frequently flooded (USGS NRCS).

26. Site size: 45 meters by 45 meters (or 150 feet by 150 feet)

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

☐ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

☐ Unknown
 17th century
☐ 1630-1675
☐ 1676-1720
 18th century
☐ 1721-1780
☒ 1781-1820
 19th century
☒ 1821-1860
☒ 1861-1900
 20th century
☒ 1901-1930
☒ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other:

30. Purpose of investigation:

☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

☐ Site Inventory
☐ MHT Grant Project
☐ Other:

31. Method of sampling (check all applicable):

☐ Non-systematic surface search
☐ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

☐ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other:

32. Extent/nature of excavation: 29 shovel tests excavated to a maximum depth of 3.4 feet below surface.
50-ft intervals for transect shovel tests, 25-ft intervals for delineation shovel tests.

F. SUPPORT DATA

33. Accompanying Data Form(s):

☐ Prehistoric
☒ Historic
☐ Shipwreck

34. Ownership: ☒ Private ☐ Federal ☐ State ☐ Local/County
☐ Unknown

36. Tenant and/or Local Contact: _____
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: _____

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
☐ Slides ☒ Field Record ☐ Other: _____
☒ Photos ☐ Sonar
☒ Field maps ☐ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Jeff Johnson
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: JJohnson@TRCCompanies.com

Date: 1/7/2021

45. Form filled out by: Jeff Johnson
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: JJohnson@TRCCompanies.com

Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Nine of the 29 shovel tests (including all survey and delineation shovel tests within 50 ft) produced artifacts; two of these shovel tests (5.9/N550 E500 and N500 E525) produced 22 and six historic artifacts, respectively, while the remaining shovel tests that contained artifacts (5.10/N550 E550, N525 E500, N525 E550, 4.9/N500 E500, N475 E525, N450 E500 and N450 E525) produced between one and four each. The artifacts were recovered from the Ap horizon (Stratum I) or from an Ab horizon (Stratum II or III) comprised of Holocene colluvium. A single-family dwelling is located approximately [redacted] Horizontally, the artifact scatter is concentrated within an ephemeral drainage that flows into Wilson Owens Branch, and the artifact concentration is likely the result of redeposition caused by erosion of the higher elevation portions of the landform where the two historic structures are located.

Site 18AN1696 is represented by a small collection of historic artifacts that potentially date from the late 18th through late 20th centuries found within the upper and lower A horizons, primarily within a gully/eroded area. The site extends outside the project LOD to the south, and the artifacts found within the LOD are likely associated with the historic occupation located well outside the LOD. Although artifacts were found in an apparent buried A horizon, this likely represents an older plow zone and there is no indication of vertical sorting by time period. No evidence of cultural features or intact substantial or patterned artifact deposits was observed within the project LOD. The house, the barn, and the area immediately surrounding them (all located outside the project LOD) may contain cultural deposits that would provide information about historic occupation in this area, but the portion of the site located within the project LOD does not represent an intact substantial or significant archaeological resource, and site 18AN1696 as represented within the project LOD does not have the ability to yield further information regarding historic period occupation of this area. No additional archaeological investigation is recommended for site 18AN1696 in association with this project as currently scoped.

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number **18AN1696**

1. Site class (check all applicable, check at least one from each group):

- a. ☒ domestic
☐ industrial
☐ transportation
☐ military
☐ sepulchre
☐ religious
- b. ☐ commercial
☐ educational
☐ non-domestic agricultural
☐ unknown
☐ other: _____

- b. ☐ urban
☒ rural
☐ unknown

- c. standing structure:
☐ yes
☒ no
☐ unknown

- d. above-grade/visible ruin:
☐ yes
☒ no
☐ unknown

2. Site Type (check all applicable):

- ☒ artifact concentration
☐ possible structure
☐ post-in-ground structure
☐ frame structure
☐ masonry structure
☐ log structure
☐ farmstead
☐ plantation
☐ townsite
☐ road/railroad
☐ wharf/landing
☐ bridge
☐ ford

- ☐ mill (specify: _____)
☐ raceway
☐ quarry
☐ furnace/forge
☐ other industrial (specify): _____
☐ battlefield
☐ military fortification
☐ military encampment
☐ cemetery
☐ unknown
☐ other: _____

3. Ethnic Association:

- ☐ Native American
☐ African American
☐ Angloamerican
☐ Hispanic American
☐ Asian American

- ☐ other Euroamerican (specify): _____
☒ unknown
☐ other: _____

4. Categories of material remains present (check all applicable):

- ☒ ceramics
☒ bottle/table glass
☐ other kitchen artifacts
☒ architecture
☐ furniture
☐ arms
☐ clothing
☐ personal items

- ☐ tobacco pipes
☒ activity items
☐ human skeletal remains
☐ faunal remains
☐ floral remains
☐ organic remains
☒ unknown
☐ other: _____

5. Diagnostics (choose from manual and give number recorded or observed):

Whiteware, undecorated (2)
Brown salt glazed stoneware (1)
Yellowware (2)
Threaded glass canning jar fragments (19)

Pearlware, undecorated (2)
Creamware, undecorated (1)
Gray salt glazed stoneware (1)

6. Features present:

☐ yes
☒ no
☐ unknown

7. Types of features present:

☐ construction feature
☐ foundation
☐ cellar hole/storage cellar
☐ hearth/chimney base
☐ posthole/postmold
☐ paling ditch/fence
☐ privy
☐ well/cistern
☐ trash pit/dump
☐ sheet midden
☐ planting feature

☐ road/drive/walkway
☐ depression/mound
☐ burial
☐ railroad bed
☐ earthworks
☐ raceway
☐ wheel pit
☐ unknown
☐ other:

8. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

Twenty-nine shovel tests were excavated across this area at 25- and 50-ft intervals, and nine of these contained artifacts. Shovel test 5.9/N550 E500 produced 22 historic artifacts, but the remaining shovel tests that contained artifacts produced between one and five each. Nineteen of the 22 artifacts from shovel test 5.9 are glass canning jar fragments, all likely from the same jar. A total of 43 historic period artifacts were recovered from the Ap (n=27) and Ab (n=16) horizons. These are mostly kitchen group (n=35) items, with activities (n=2), architectural (n=4), and miscellaneous (n=2) group items also represented. The artifacts include one brown salt glazed stoneware, one gray salt glazed stoneware, one creamware, one ironstone, two pearlware, two whiteware, and two yellowware sherds; two glass bottle, 19 glass canning jar, and three glass container fragments; part of an aluminum Miller Lite can, two terracotta flowerpot sherds, two brick fragments, one laminated "safety" glass fragment, one window glass fragment, one aerosol can fragment, and one unclassified plastic object. All of the ceramic sherds are undecorated, and all but one of the ceramic artifacts were found in the Ab horizon. The Ab horizon also produced the unclassified plastic object, and the only ceramic found in the upper A horizon is potentially the earliest artifact found on the site—the creamware sherd. The artifacts are associated with a wide range of potential manufacture dates between the late 18th through late 20th centuries.

No structure is shown within the site boundary on late 19th century through late 20th century maps, but a house and barn are currently located _____, respectively. The artifacts found in the project area are likely associated with the structures located outside the project LOD, but the artifact assemblage appears to be the result of intermittent discard over a long period of time or of erosional forces.

12. Form filled out by: Jeff Johnson

Address/Company: TRC Environmental Corporation, 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517

Date: 1/18/2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18CH971_____

County: Charles

A. DESIGNATION

1. Site Name: Mill Swamp FS-1
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Lithic scatter (possibly Middle Woodland); Late-19th to Mid-20th century rural farmstead with standing structures.
4. Prehistoric X Historic X Unknown _____
5. Terrestrial X Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Mount Vernon, MD/VA (For underwater sites)
NOAA Chart No.: _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
- | | |
|--------------------------------|---|
| <u> </u> Allegany Plateau | <u> </u> Lancaster/Frederick Lowland |
| <u> </u> Ridge and Valley | <u> </u> Eastern Piedmont |
| <u> </u> Great Valley | <u> X </u> Western Shore Coastal Plain |
| <u> </u> Blue Ridge | <u> </u> Eastern Shore Coastal Plain |
9. Major Watershed/Underwater Zone (see instructions for map and list): Lower Potomac River

C. ENVIRONMENTAL DATA

10. Nearest Water Source: Mill Swamp Stream Order: _____
11. Closest Surface Water Type (check all applicable):
- | | |
|---|---------------------------------------|
| <u> </u> Ocean | <u> </u> Freshwater Stream/River |
| <u> </u> Estuarine Bay/Tidal River | <u> X </u> Freshwater Swamp |
| <u> </u> Tidal or Marsh | <u> </u> Lake or Pond |
| | <u> </u> Spring |
12. Distance from closest surface water: 10 meters (or 33 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: LxD

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input checked="" type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input type="checkbox"/> Hillslope	<input type="checkbox"/> Other: _____

18. Slope: 5-15%

19. Elevation: 7.5 meters (or 25 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input checked="" type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input checked="" type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input checked="" type="checkbox"/> Residential
<input type="checkbox"/> Underbrush/Overgrown	<input checked="" type="checkbox"/> Ruin
<input checked="" type="checkbox"/> Pasture	<input checked="" type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other: _____

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input checked="" type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other: _____

23. Extent of disturbance:

☐ Minor (0-10%)
☒ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

Shovel tests on the ridge toe encountered similar stratigraphic sequences, consisting of a 0.25 to 0.7 ft thick A horizon of very dark grayish brown (10YR 3/2) loamy sand (with pebbles and small cobbles) overlying a 0.7 to 1.0 ft thick E horizon of yellowish brown (10YR 5/4) loamy sand, with abundant pebbles and occasional cobbles. This overlay a strong brown (7.5YR 4/6) sandy clay loam B horizon (occasionally cobbly in the upper part), which was encountered at depths of 1.1 to 1.7 fbs. Deeper tests encountered similar sandy clay loam that graded to clay loam to a depth of 2.5 fbs. All artifacts were recovered from the A and E horizons.

26. Site size: _____ meters by _____ meters (or _____ 300 _____ feet by _____ 300 _____ feet)

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

- ☒ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☐ Early Woodland
☒ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

- ☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☒ 1861-1900
☐ 20th century
☒ 1901-1930
☒ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

- ☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

- ☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other: _____

30. Purpose of investigation:

- ☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

- ☐ Site Inventory
☐ MHT Grant Project
☐ Other: _____

31. Method of sampling (check all applicable):

- ☐ Non-systematic surface search
☐ Systematic surface collection
☒ Non-systematic shovel test pits
☒ Systematic shovel test pits

- ☐ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other: _____

32. Extent/nature of excavation: 30 1.5×1.5-ft round STPs excavated to a maximum depth of 2.5 feet below surface.
25-ft intervals for STPs within Project area, 50-ft intervals for STPs outside Project area. One STP excavated
at sub-15-ft interval near edge of landform.

F. SUPPORT DATA

33. Accompanying Data Form(s):

- ☒ Prehistoric
☒ Historic
☐ Shipwreck

34. Ownership: ☒ Private ☐ Federal ☐ State ☐ Local/County
☐ Unknown

35. Owner(s): _____
Phone: _____
Email: _____

36. Tenant and/or Local Contact: _____
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: _____

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
☐ Slides ☒ Field Record ☐ Other: _____
☒ Photos ☐ Sonar
☒ Field maps ☐ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Bruce Idol; Jeff Johnson
Company/Group name: TRC
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: BIdol@TRCCompanies.com; JJohnson@TRCCompanies.com Date: 10/6/2020

45. Form filled out by: Jeff Johnson
Company/Group name: TRC
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: JJohnson@TRCCompanies.com Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Eight of the 30 shovel tests (including all survey and delineation shovel tests within 50 ft) produced artifacts; four of these eight (including one excavated at a sub-15 ft interval) were situated directly on or immediately off the toe crest, but outlying shovel tests 28 and 148 generated a single prehistoric period artifact each and encountered somewhat similar soils at that location. Four shovel tests produced prehistoric period artifacts only, two (25 and 148) contained historic and prehistoric period artifacts, and two (150 and 151) yielded only historic period artifacts. These artifacts were found in the two upper strata (A/Ap and E horizons) at depths no greater than 1.4 fbs. Except for shovel test 24 (which produced 24 pieces of debitage), the shovel tests each generated from one to five prehistoric period artifacts.

Site 18CH971 is associated with limited pre-contact period (likely Middle Woodland) and limited historic period (likely early through mid-20th century) use of this area. Only eight of the 27 shovel tests excavated on and in close proximity to the site produced artifacts, and all but one of these produced a relatively low number of artifacts. Shovel test 24, which produced 24 quartz and quartzite flakes, likely represents a very localized lithic tool maintenance episode. All of the historic and most (75%) of the pre-contact artifacts were found in the A/E interface zone, with only two pre-contact artifacts recovered from the E horizon and six from the A horizon. The pre-contact period artifacts may be associated with just one or a few short term resource procurement visits to the area, and the historic period artifacts are likely associated with the occupation that is more concentrated to the east outside the LOD and only peripherally represented in the project LOD. No evidence of intact substantial deposits or subsurface cultural features associated with either the historic or pre-contact period use of this area was found; the historic outbuilding foundation remnant is located well outside the LOD. It is possible that the portion of site 18CH971 located outside the project LOD, which was only investigated in a limited manner, could contain valuable data regarding pre-contact or historic period occupations of the area, but there is no evidence that meaningful artifact patterns or intact substantial deposits are located in the project area, and while there are several nearby historic structures, all of them are located well outside the project LOD. Site 18CH971 should be considered unassessed for NRHP eligibility, however, as expressed within the project LOD, the site does not appear to offer additional research potential and no further investigation of this site is recommended for this project as currently scoped

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18CH971

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☐ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☒ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☒ fire-cracked rock
☐ other lithics
☐ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☐ chert
☐ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

Unclassified Lanceolate PPK Fragment (1)

5. Features present:

☐ yes
☐ no
☒ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The prehistoric period assemblage ($n=35$) includes the base of a lanceolate projectile point, an early stage biface fragment, and 33 pieces of unmodified debitage (17 of quartzite, 16 of quartz). The fragmentary projectile point is made of quartzite, and likely represents Middle Woodland component (Jack's Reef or Fox Creek); the biface fragment is made of quartz and appears to represent an early stage of reduction.

12. Form filled out by: Jeff Johnson
Address/Company: TRC Chapel Hill, NC
Date: 1/18/2021

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18CH971

1. Site class (check all applicable, check at least one from each group):

- a. ☒ domestic
☐ industrial
☐ transportation
☐ military
☐ sepulchre
☐ religious
- b. ☐ urban
☒ rural
☐ unknown
- c. standing structure:
☒ yes
☐ no
☐ unknown
- d. above-grade/visible ruin:
☒ yes
☐ no
☐ unknown
- ☐ commercial
☐ educational
☐ non-domestic agricultural
☐ unknown
☐ other: _____

2. Site Type (check all applicable):

- ☒ artifact concentration
☐ possible structure
☐ post-in-ground structure
☐ frame structure
☐ masonry structure
☐ log structure
☒ farmstead
☐ plantation
☐ townsite
☐ road/railroad
☐ wharf/landing
☐ bridge
☐ ford
- ☐ mill (specify: _____)
☐ raceway
☐ quarry
☐ furnace/forge
☐ other industrial (specify): _____
- ☐ battlefield
☐ military fortification
☐ military encampment
☐ cemetery
☐ unknown
☐ other: _____

3. Ethnic Association:

- ☐ Native American
☐ African American
☐ Angloamerican
☐ Hispanic American
☐ Asian American
- ☐ other Euroamerican (specify): _____
- ☒ unknown
☐ other: _____

4. Categories of material remains present (check all applicable):

- ☒ ceramics
☒ bottle/table glass
☐ other kitchen artifacts
☒ architecture
☐ furniture
☐ arms
☐ clothing
☐ personal items
- ☐ tobacco pipes
☐ activity items
☐ human skeletal remains
☐ faunal remains
☐ floral remains
☐ organic remains
☐ unknown
☐ other: _____

5. Diagnostics (choose from manual and give number recorded or observed):

Gray Salt Glazed Stoneware (1)
Press-Molded Depression Era Glassware (1)
7-Up Green Glass Container (1)

6. Features present:

☒ yes
☐ no
☐ unknown

7. Types of features present:

☐ construction feature
☒ foundation
☐ cellar hole/storage cellar
☐ hearth/chimney base
☐ posthole/postmold
☐ paling ditch/fence
☐ privy
☐ well/cistern
☐ trash pit/dump
☐ sheet midden
☐ planting feature

☐ road/drive/walkway
☐ depression/mound
☐ burial
☐ railroad bed
☐ earthworks
☐ raceway
☐ wheel pit
☐ unknown
☐ other:

8. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The historic period artifacts include one undecorated gray salt glazed stoneware sherd, one press-molded glassware fragment, four unclassified glass container fragments, and two aqua window glass fragments. One small brick fragment was observed in shovel test 148, but not collected. The stoneware sherd represents a hollowware container and exhibits an unwashed interior (Figure 6.16a). Salt glazed stoneware is associated with early 18th to 20th century manufacture (Ketchum 1991). The glassware fragment is pale pink and is Depression-era (1920s–1950s) glass. One of the glass container fragments is 7-Up green in color, suggesting mid-20th century manufacture (SHA 2020); the other three are small fragments of colorless glass. The stoneware sherd was recovered from the ridge toe, but all of the other historic period artifacts were recovered from the higher elevation portion of the landform to the east—closer to the standing structures and the former structure locations as shown on historic mapping. Collectively, the historic period artifacts are likely associated with an early to mid-20th century occupation.

The remains of a concrete slab and cinder block foundation was identified in the wooded area between shovel tests 148 and 149, and shovel tests 150–152 were excavated near outbuildings within the backyard of a dwelling located approximately 70 ft north of the transect. A structure is depicted near the location of 18CH971 on early 20th century USGS (1913, 1923) topographic maps. A structure with outbuildings is depicted near the location of 18CH971 on the USGS 1944 Mount Vernon, VA topographic map, and the same structure is mapped at that location through the 1983 edition, at which point subsequent editions depict no structures in the vicinity. The dwelling and multiple outbuildings are visible on aerial photographs dating from 1957 through 2019, and the dwelling was still standing during the fieldwork in October 2020. All of these structures are located at least 100 ft outside the project LOD.

12. Form filled out by: Jeff Johnson

Address/Company: TRC Chapel Hill, NC

Date: 1/18/2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18CH972

County: Charles

A. DESIGNATION

1. Site Name: Mill Swamp FS-2
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Early Woodland lithic scatter; Late-19th to Mid-20th century domestic artifact scatter
4. Prehistoric X Historic X Unknown _____
5. Terrestrial X Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Mount Vernon, MD/VA (For underwater sites)
NOAA Chart No.: _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
 Allegany Plateau Lancaster/Frederick Lowland
 Ridge and Valley Eastern Piedmont
 Great Valley X Western Shore Coastal Plain
 Blue Ridge Eastern Shore Coastal Plain
9. Major Watershed/Underwater Zone (see instructions for map and list): Lower Potomac River

C. ENVIRONMENTAL DATA

10. Nearest Water Source: Unnamed Tributary of Mill Swamp Stream Order: _____
11. Closest Surface Water Type (check all applicable):
 Ocean X Freshwater Stream/River
 Estuarine Bay/Tidal River Freshwater Swamp
 Tidal or Marsh Lake or Pond
 Spring
12. Distance from closest surface water: 122 meters (or 400 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: LxD

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input checked="" type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input type="checkbox"/> Hillslope	<input checked="" type="checkbox"/> Other:
	<u>Knoll</u>

18. Slope: 5-15%

19. Elevation: 10 meters (or 33 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input checked="" type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other:

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input checked="" type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other:

23. Extent of disturbance:

☐ Minor (0-10%)
☒ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

All shovel tests and the test unit encountered similar stratigraphic sequences, consisting of a 0.6 to 1.3 ft thick brown (10YR 4/3) to yellowish brown (10YR 5/4) silt loam plowzone conformably overlying a strong brown (7.5YR 5/6), brown (7.5YR 5/3, 7.5YR 5/2), or brownish yellow (10YR 6/6) clay loam B horizon. These appear consistent with plowed Liverpool-Piccowaxen complex soils, which typically exhibit a silt loam A horizon over a silt loam E horizon extending to a depth of five inches. The underlying Bt horizon is described as silt loam in the upper part (to a depth of 13 inches) and clay loam in the lower part.

26. Site size: _____ meters by _____ meters (or 250 feet by 200 feet)

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

- ☐ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☒ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

- ☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☒ 1861-1900
☐ 20th century
☒ 1901-1930
☒ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

- ☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

- ☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other: _____

30. Purpose of investigation:

- ☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

- ☐ Site Inventory
☐ MHT Grant Project
☐ Other: _____

31. Method of sampling (check all applicable):

- ☐ Non-systematic surface search
☐ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

- ☒ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other: _____

32. Extent/nature of excavation: 48 1.5×1.5-ft round STPs excavated to a maximum depth of 1.9 feet below surface.
50-ft intervals for transect STPs, 25-ft intervals for delineation STPs. One 5×5-ft test unit excavated to a depth
of 1.4 feet below surface.

F. SUPPORT DATA

33. Accompanying Data Form(s):

- ☒ Prehistoric
☒ Historic
☐ Shipwreck

34. Ownership: ☒ Private ☐ Federal ☐ State ☐ Local/County
☐ Unknown

35. Owner(s): _____
Phone: _____
Email: _____

36. Tenant and/or Local Contact: _____
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: _____

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
____ Slides ☒ Field Record _____ Other: _____
☒ Photos _____ Sonar
☒ Field maps _____ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
____ No
____ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Bruce Idol; Jeff Johnson
Company/Group name: TRC
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: BIdol@TRCCompanies.com; JJohnson@TRCCompanies.com

Date: 10/7/2020

45. Form filled out by: Jeff Johnson
Company/Group name: TRC
Address: 50101 Governors Drive, Suite 250, Chapel Hill, NC 27517
Phone: (919) 475-5507
Email: JJohnson@TRCCompanies.com

Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Historic period artifacts were found across the site but were generally more concentrated in the western portion of the site. Most shovel tests produced from one to five artifacts each, two contained from six to 10 artifacts, and only three shovel tests yielded more than 10 artifacts, although all 17 of the items from one of these are coal slag fragments. These three shovel tests (121 [eastern], 125 [south-central], and 163 [northwestern]) are located in different portions of the site and other than the concentration of coal slag in the eastern shovel test, contained both kitchen and architectural items. Artifact distribution patterns do not suggest a possible location for a former structure within the site boundary. Although the structure depicted on the early 20th century maps was likely located somewhere in this vicinity, no evidence of above-ground or subsurface cultural features was encountered during the investigation of site 18CH972.

The pre-contact component(s) on site 18CH972 is represented by a very low-density widely dispersed scatter of lithic artifacts. The Calvert PPK indicates an Early Woodland period component, although it is possible that the scattered other artifacts are associated with other pre-contact period visits to the site. The pre-contact period debitage assemblage represents very limited lithic reduction activities, while the PPK is suggestive of hunting activities. The recovery of six FCR suggests the potential for the presence (or at least former presence given the scattered nature of those artifacts) of a hearth type feature on the site, although no evidence of cultural features was found. The historic period component dates to the late 19th to 20th century and is likely associated with a structure that was located in this area until about 1923, but also likely contains artifacts distributed across the field during later uses of the site area for agricultural purposes. All of the pre-contact and historic artifacts were recovered from the plowzone and there are no discrete distributions of any types of artifact classes, possibly due to long term agricultural activities. Site 18CH972 appears to lack the integrity, clarity, and substantial deposits or cultural features that would allow it to provide substantive information regarding local pre-contact or historic period occupations. Site 18CH972 is recommended not eligible for the NRHP, and no further investigation of the site is recommended for this project as currently scoped.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18CH972

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☐ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☒ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☒ fire-cracked rock
☐ other lithics
☐ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☐ chert
☐ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

Calvert PPK (1)

5. Features present:

☐ yes
☐ no
☒ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The pre-contact period assemblage from 18CH972 consists of 10 artifacts, including a quartz Early Woodland period Calvert PPK, a quartz bipolar core fragment, one quartz flake, one quartzite flake, and five quartzite FCR. The asymmetrical PPK is complete, and is 36.2 mm long, 24.6 mm wide at the shoulders, and 7.9 mm thick. The stem is 10.9 mm in length and 10.5 mm in width. Five of the FCR were recovered from TU 1, and the remaining pre-contact artifacts were recovered from shovel tests. All of the pre-contact artifacts were found in the plowzone and all but three of these were found in levels that also contained historic artifacts. Half of the pre-contact period artifacts were found in TU 1, and the remainder were very lightly scattered across the site. Although the FCR may have been associated with a cultural feature, they were found in three different levels in TU 1, and no other indications of a cultural feature were found on this site. The pre-contact period assemblage from 18CH972 appears to indicate limited use of this area during at least the Early Woodland period but does not seem to be associated with a substantial pre-contact period occupation in this area.

12. Form filled out by: Jeff Johnson
Address/Company: TRC Chapel Hill, NC
Date: 1/18/2021

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18CH972

1. Site class (check all applicable, check at least one from each group):

- a. ☒ domestic
☐ industrial
☐ transportation
☐ military
☐ sepulchre
☐ religious
- b. ☐ urban
☒ rural
☐ unknown
- c. standing structure:
☐ yes
☒ no
☐ unknown
- d. above-grade/visible ruin:
☐ yes
☒ no
☐ unknown
- ☐ commercial
☐ educational
☐ non-domestic agricultural
☐ unknown
☐ other: _____

2. Site Type (check all applicable):

- ☒ artifact concentration
☐ possible structure
☐ post-in-ground structure
☐ frame structure
☐ masonry structure
☐ log structure
☐ farmstead
☐ plantation
☐ townsite
☐ road/railroad
☐ wharf/landing
☐ bridge
☐ ford
- ☐ mill (specify: _____)
☐ raceway
☐ quarry
☐ furnace/forge
☐ other industrial (specify): _____
- ☐ battlefield
☐ military fortification
☐ military encampment
☐ cemetery
☐ unknown
☐ other: _____

3. Ethnic Association:

- ☐ Native American
☐ African American
☐ Angloamerican
☐ Hispanic American
☐ Asian American
- ☐ other Euroamerican (specify): _____
- ☒ unknown
☐ other: _____

4. Categories of material remains present (check all applicable):

- ☒ ceramics
☒ bottle/table glass
☐ other kitchen artifacts
☒ architecture
☒ furniture
☒ arms
☐ clothing
☐ personal items
- ☐ tobacco pipes
☒ activity items
☐ human skeletal remains
☐ faunal remains
☐ floral remains
☐ organic remains
☒ unknown
☐ other: _____

5. Diagnostics (choose from manual and give number recorded or observed):

Machine made bead finish glass bottle rim (1)

Milk glass canning jar lid liner fragment (3)

Phonograph record fragment (1)

Whiteware tableware sherd (4)

Amethyst tint glass container fragment (2)

Amethyst tint glassware fragment (2)

6. Features present:

☐ yes
☒ no
☐ unknown

7. Types of features present:

☐ construction feature
☐ foundation
☐ cellar hole/storage cellar
☐ hearth/chimney base
☐ posthole/postmold
☐ paling ditch/fence
☐ privy
☐ well/cistern
☐ trash pit/dump
☐ sheet midden
☐ planting feature

☐ road/drive/walkway
☐ depression/mound
☐ burial
☐ railroad bed
☐ earthworks
☐ raceway
☐ wheel pit
☐ unknown
☐ other: _____

8. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

A total of 108 historic artifacts were recovered from 18CH972, including 76 from shovel tests and 32 from TU 1, all from the plowzone. The historic artifacts from 18CH972 include four undecorated whiteware sherds, one molded porcelain sherd, three glass canning jar lid liner fragments, one colorless glass bottle fragment, 31 container glass fragments (24 colorless, two aqua, two amethyst tinted, and three amber), one press-molded amethyst tinted glassware fragment, three colorless glassware fragments, one small fragment of a phonograph record, one modern bullet, one cast iron stove leg, 28 pieces of window glass (aqua tinted), one cut nail, three wire nails, five brick fragments, two unclassified metal objects, one unclassified plastic object, and 21 pieces of coal slag. All of these are the product of late 19th to 20th century manufacture. Most are kitchen and architectural group items, with activities, arms, and furniture groups each represented by a single artifact. The assemblage suggests a domestic occupation of this area, likely associated with a structure depicted in the vicinity of the site on early 20th century maps (e.g., Smith and Rose 1922; USGS 1913, 1923). No structure is shown in this location on maps dating from 1925 through 1965, although the abandoned barn located just north of the site is shown on maps dating to 1968 and 1971, and is depicted as a residential structure on maps dating to 1981 and 1983 (USGS 1925, 1934, 1939, 1945, 1965, 1968, 1971, 1981, 1983). Historic period artifacts were found across the site but were generally more concentrated in the western portion of the site. Most shovel tests produced from one to five artifacts each, two contained from six to 10 artifacts, and only three shovel tests yielded more than 10 artifacts, although all 17 of the items from one of these are coal slag fragments. These three shovel tests (121 [eastern], 125 [south-central], and 163 [northwestern]) are located in different portions of the site and other than the concentration of coal slag in the eastern shovel test, contained both kitchen and architectural items. Artifact distribution patterns do not suggest a possible location for a former structure within the site boundary. Although the structure depicted on the early 20th century maps was likely located somewhere in this vicinity, no evidence of above-ground or subsurface cultural features was encountered during the investigation of site 18CH972.

12. Form filled out by: Jeff Johnson

Address/Company: TRC Chapel Hill, NC

Date: 1/18/2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☒



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18PR111

County: Prince George's

A. DESIGNATION

1. Site Name: Paint Branch FS 9
2. Alternate Site Name/Numbers: ARC site
3. Site Type (describe site chronology and function; see instructions):
Unidentified prehistoric short-term resource procurement site with a historic stoneware sherd from a secondary context
4. Prehistoric x Historic x Unknown
5. Terrestrial x Submerged/Underwater Both

B. LOCATION

6. USGS 7.5' Quadrangle(s): Beltsville (For underwater sites)
NOAA Chart No.: _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
 Allegany Plateau Lancaster/Frederick Lowland
 Ridge and Valley Eastern Piedmont
 Great Valley x Western Shore Coastal Plain
 Blue Ridge Eastern Shore Coastal Plain
9. Major Watershed/Underwater Zone (see instructions for map and list): Washington Metro

C. ENVIRONMENTAL DATA

10. Nearest Water Source: unnamed tributary of Paint Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
 Ocean x Freshwater Stream/River
 Estuarine Bay/Tidal River Freshwater Swamp
 Tidal or Marsh Lake or Pond
 Spring
12. Distance from closest surface water: 6.1 meters (or 20 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: RcA/CF

17. Topographic Settings (check all applicable):

<input checked="" type="checkbox"/> Floodplain	_____ Hilltop/Bluff
_____ Interior Flat	_____ Upland Flat
<input checked="" type="checkbox"/> Terrace	_____ Ridgetop
_____ Low Terrace	_____ Rockshelter/Cave
_____ High Terrace	_____ Unknown
_____ Hillslope	_____ Other:

18. Slope: 0%

19. Elevation: ____ meters (or 102 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input checked="" type="checkbox"/> Plowed/Tilled	_____ Extractive
_____ No-Till	_____ Military
_____ Wooded/Forested	_____ Recreational
_____ Logging/Logged	_____ Residential
_____ Underbrush/Overgrown	_____ Ruin
_____ Pasture	_____ Standing Structure
_____ Cemetery	_____ Transportation
_____ Commercial	_____ Unknown
_____ Educational	_____ Other:

21. Condition of site:

☒ Disturbed
_____ Undisturbed
_____ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	_____ Vandalized/Looted
_____ Eroded/Eroding	_____ Dredged
_____ Graded/Contoured	_____ Heavy Marine Traffic
_____ Collected	_____ Other:

23. Extent of disturbance:

☒ Minor (0-10%)
_____ Moderate (10-60%)
_____ Major (60-99%)
_____ Total (100%)
_____ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

The stratigraphy was highly variable across the site. One profile involved a silt loam Ap horizon (0–0.9 feet), a sandy loam Bw1 horizon (0.9–1.9 fbs), a sandy loam Bw2 horizon (1.9–2.9 fbs), and a medium sand with 20% large cobbles C horizon (2.9–3.3+ fbs). A second sequence involved a silt loam Ap1 horizon (0–0.9 fbs), a silt loam Ap2 horizon (0.9–1.2 fbs), a silt loam Bw1 horizon (1.2–1.5 fbs), a silt loam Bw2 horizon (1.5–2.0 fbs), a silt loam Bwg3 horizon (2.0–2.5 fbs), and a sandy C1 horizon (2.5–3.4 fbs). Auguring extended this profile to include a sandy clay with mineral staining Btg4 horizon (3.4–3.8 fbs), a sandy C2 horizon (3.8–4.2 fbs), a sandy C3 horizon (4.2–6.3 fbs), and a II C channel gravel and cobbles (6.3+ fbs). A third profile displayed a silt loam Ap (0–0.6 fbs), a sandy loam flood episode C1 horizon (0.6–0.8 fbs), a silt loam B1 horizon (0.8–1.3 fbs), a silt loam incipient buried Ab1 horizon (1.1–1.3 fbs), a sandy loam flood deposit C2 horizon (1.3–1.5 fbs), a silt loam incipient buried Ab2 horizon (1.5–1.8 fbs), a sandy C3 horizon (1.8–2.5 fbs), and a silt loam incipient buried Ab3 horizon (2.5–3.3 fbs). A fourth profile involved an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam with 20% gravel; a Bt1 horizon (0.9–1.9 fbs) of yellowish brown (10YR 5/8) silty clay; a Bt2 horizon (1.9–3.0 fbs) of yellowish brown (10YR 5/4) clay loam with redox staining; a Bt3 horizon (3.0–3.2 fbs) of yellowish brown (10YR 5/2) clay loam with redox staining; and C horizon of gravel that was encountered at 3.2 fbs. A fifth shovel test profile consists of an Ap over C horizon and involved an Ap horizon (0–0.9 fbs) of brown (10YR 4/3) silt loam with 20% gravel; a C1 horizon (0.9–2.1 fbs) of yellowish brown (10YR 5/6) sand with 50% gravel and cobbles; and a C2 horizon (2.1–3.3+ fbs) of brownish yellow (10YR 6/8) sand with 50% gravel and cobbles.

26. Site size: 107.5 meters by 88.8 meters (or 353 feet by 291 feet)

27. Draw a sketch map of the site and immediate environs, here or on separate sheet:

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

☐ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☒ 1861-1900
☐ 20th century
☒ 1901-1930
☐ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other: _____

30. Purpose of investigation:

☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

☐ Site Inventory
☐ MHT Grant Project
☐ Other: _____

31. Method of sampling (check all applicable):

☐ Non-systematic surface search
☒ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

☐ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other: _____

32. Extent/nature of excavation: 26 1.5 ft diameter (45 cm) shovel tests were excavated across the southern portion of the site at 25 ft (7.5m) intervals. The shovel tests were excavated by natural soil strata to the C horizon or Pleistocene soils and screened through 1/4" mesh. Five of the shovel tests yielded cultural material.

F. SUPPORT DATA

33. Accompanying Data Form(s):

☒ Prehistoric
☒ Historic
☐ Shipwreck

34. Ownership: ☐ Private ☒ Federal ☐ State ☐ Local/County
☐ Unknown

35. Owner(s): US Department of Agriculture
Address: _____
Phone: _____
Email: _____

36. Tenant and/or Local Contact: Beltsville Agricultural Research Center
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: Wayne Clark conducted a survey of the BARC in 1973

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
☐ Slides ☒ Field record ☐ Other: _____
☒ Photos ☐ Sonar
☒ Field maps ☐ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 12/1/2020

45. Form filled out by: Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 1/19/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Although the former boundary of previously recorded site 18PR111 did not extended into the project LOD, project results indicate that the boundary of this site should be revised to extend to the south and east, [REDACTED] D. The revised site boundary is defined to the south, west, and east by negative shovel tests and Tributary 1, but the site [REDACTED] well outside of the project LOD and no investigation was conducted in that direction. This broadly dispersed (vertically and horizontally) and low-density scatter of lithic materials is likely associated with resource procurement activities conducted during multiple pre-contact periods. As a majority of the site is located outside the project LOD and most of that area was not investigated, the NRHP eligibility of this site is considered unassessed; however, the portion of the site located within the project LOD does not appear to contain substantial intact deposits or cultural features that could provide new or important information regarding the pre-contact or historic period occupations of this area and no further archaeological investigation of this site is recommended for this project as scoped.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18PR111

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☒ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☐ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☒ fire-cracked rock
☐ other lithics
☐ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☐ chert
☒ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

5. Features present:

☐ yes
☐ no
☒ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The project pre-contact assemblage associated with site 18PR111 consists of one rhyolite and one quartzite flake recovered from the surface; two quartz flakes recovered from a fill layer; one quartz biface fragment, one quartz core fragment, one quartzite FCR, two quartzite flakes, one piece of quartz shatter, one quartz flake, and one rhyolite flake recovered from the Ap horizon; one quartzite flake found in the Ab2 horizon; one quartz, two quartzite, and three rhyolite flakes found in the Bw1 horizon; and two rhyolite flakes found in the Bw2 horizon. Fourteen of the 21 pre-contact period artifacts, including the core and the FCR, were recovered from N500 E500 (ST 7.12), although almost half of these (n=6) were found in the disturbed plowzone. Only four of the other 25 shovel tests excavated across the site produced cultural material, and with the exception of the two pre-contact artifacts found in a fill layer, each of these produced only a single artifact. Although nine of the 21 pre-contact period artifacts were recovered from the potentially undisturbed Ab2 (Stratum VI), Bw1 (Stratum II), and Bw2 (Stratum III) horizons, these are all non-diagnostic pieces of debitage, and the site artifacts in general are very lightly and widely distributed vertically, offering no suggestions for any specific concentration areas within a particular stratum. The pre-contact period artifacts from 18PR111 are likely associated with multiple visits to the area for resource procurement purposes, probably occurring during multiple pre-contact periods.

12. Form filled out by: Tracy L. Millis
Address/Company: TRC Environmental Corporation
Date: January 19, 2021

MARYLAND ARCHEOLOGICAL SITE SURVEY: HISTORIC DATA FORM

Site Number 18PR111

1. Site class (check all applicable, check at least one from each group):

- a. ☐ domestic
☐ industrial
☐ transportation
☐ military
☐ sepulcher
☐ religious

- ☐ commercial
☐ educational
☐ non-domestic agricultural
☐ unknown
☒ other:

- b. ☐ urban
☒ rural
☐ unknown

c. standing structure:

- ☐ yes
☒ no
☐ unknown

d. above-grade/visible ruin:

- ☐ yes
☒ no
☐ unknown

2. Site Type (check all applicable):

- ☐ artifact concentration
☐ possible structure
☐ post-in-ground structure
☐ frame structure
☐ masonry structure
☐ log structure
☐ farmstead
☐ plantation
☐ townsite
☐ road/railroad
☐ wharf/landing
☐ bridge
☐ ford

- ☐ mill (specify: _____)
☐ raceway
☐ quarry
☐ furnace/forge
☐ other industrial (specify):

☐ battlefield
☐ military fortification
☐ military encampment
☐ cemetery
☒ unknown
☐ other: _____

3. Ethnic Association:

- ☐ Native American
☐ African American
☐ Angloamerican
☐ Hispanic American
☐ Asian American

- ☐ other Euroamerican (specify):

☒ unknown
☐ other:

4. Categories of material remains present (check all applicable):

- ☒ ceramics
☐ bottle/table glass
☐ other kitchen artifacts
☐ architecture
☐ furniture
☐ arms
☐ clothing
☐ personal items

- ☐ tobacco pipes
☐ activity items
☐ human skeletal remains
☐ faunal remains
☐ floral remains
☐ organic remains
☐ unknown
☐ other:

5. Diagnostics (choose from manual and give number recorded or observed):

Bristol type stoneware (n=1)

6. Features present:

☐ yes
☒ no
☐ unknown

7. Types of features present:

☐ construction feature
☐ foundation
☐ cellar hole/storage cellar
☐ hearth/chimney base
☐ posthole/postmold
☐ paling ditch/fence
☐ privy
☐ well/cistern
☐ trash pit/dump
☐ sheet midden
☐ planting feature

☐ road/drive/walkway
☐ depression/mound
☐ burial
☐ railroad bed
☐ earthworks
☐ raceway
☐ wheel pit
☐ unknown
☐ other: _____

8. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The single historic period artifact found on 18PR111 during the project survey is an undecorated Bristol stoneware sherd recovered from fill deposits in a shovel test located along the farm road. It is likely associated with the documented 19th through early 20th century use of the area but is not associated with a significant historic resource in this area.

12. Form filled out by: Tracy L. Millis
Address/Company: TRC Environmental Corporation
Date: January 19, 2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☒



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18PR113

County: Prince George's

A. DESIGNATION

1. Site Name: Paint Branch FS-1
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Woodland and possibly Late Archaic period short-term resource procurement site
4. Prehistoric ☒ Historic _____ Unknown _____
5. Terrestrial ☒ Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Beltsville (For underwater sites)
NOAA Chart No.: _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
☐ Allegany Plateau ☐ Lancaster/Frederick Lowland
☐ Ridge and Valley ☐ Eastern Piedmont
☐ Great Valley ☒ Western Shore Coastal Plain
☐ Blue Ridge ☐ Eastern Shore Coastal Plain
9. Major Watershed/Underwater Zone (see instructions for map and list): Washington Metro

C. ENVIRONMENTAL DATA

10. Nearest Water Source: unnamed tributary of Paint Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
☐ Ocean ☒ Freshwater Stream/River
☐ Estuarine Bay/Tidal River ☐ Freshwater Swamp
☐ Tidal or Marsh ☐ Lake or Pond
☐ Spring
12. Distance from closest surface water: 4 meters (or 14 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: RcB

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input checked="" type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input checked="" type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input type="checkbox"/> Hillslope	<input type="checkbox"/> Other: _____

18. Slope: 2-5%

19. Elevation: ____ meters (or 98 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input checked="" type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input checked="" type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other: _____

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other: _____

23. Extent of disturbance:

☒ Minor (0-10%)
☐ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

The site area is characterized stratigraphically by a silt loam plowzone (Ap horizon), a series of two or three silty clay loam cambic B horizons (Bw1, Bw2, and Bw3), and a coarse wet sand C horizon overlying gravel bedload. Cultural material associated with the western part of the site and landform were recovered from Strata III and IV (Bw horizons) between 2.63–2.95 fbs and just above a C horizon of coarse sand. One small triangular projectile point from Stratum IV (Bw horizon) at 2.5–2.75 fbs suggests that this level is associated with the Woodland period. In contrast, in shovel tests excavated to the southeast, artifacts gradually began occurring higher in the soil column. As the site ascends onto the T2 terrace, the cultural material appears to only be present in Strata I and II (Ap and Bw horizons), and no cultural material was found in the lower 2.63–3.3 fbs levels like the western side of the site. One sherd from Stratum I (really Stratum II since the Ap horizon was not present) suggests that this upper cultural level is also Woodland. FCR were recovered in one shovel test from a dark organic layer that may represent a prehistoric pit feature.

26. Site size: 60 meters by 23 meters (or _____ feet by _____ feet)

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.

D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

- ☐ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☒ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

- ☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☐ 1861-1900
☐ 20th century
☐ 1901-1930
☐ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

- ☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

- ☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other: _____

30. Purpose of investigation:

- ☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

- ☐ Site Inventory
☐ MHT Grant Project
☐ Other: _____

31. Method of sampling (check all applicable):

- ☐ Non-systematic surface search
☐ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

- ☒ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other: _____

32. Extent/nature of excavation: 21 1.5 ft diameter (45 cm) shovel tests were excavated across the site at 15 ft (4.6m) intervals. The shovel tests were excavated by natural soil strata to 100 cmbs and screened through 1/4" mesh. Additionally, 2 5 x 5 ft test units were excavated at the site by natural strata within 3 inch (0.25 ft) levels. Sixteen shovel tests and both test units yielded cultural material.

F. SUPPORT DATA

33. Accompanying Data Form(s):

- ☒ Prehistoric
☐ Historic
☐ Shipwreck

34. Ownership: ☐ Private ☒ Federal ☐ State ☐ Local/County
☐ Unknown

35. Owner(s): US Department of Agriculture
Address: _____
Phone: _____
Email: _____

36. Tenant and/or Local Contact: Beltsville Agricultural Research Center
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: Wayne Clark conducted a survey of the BARC in 1973

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
☐ Slides ☒ Field record ☐ Other: _____
☒ Photos ☐ Sonar
☒ Field maps ☐ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 10/9/2020

45. Form filled out by: Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 1/19/2021

46. Site Summary/Additional Comments (append additional pages if needed):

The project investigation included excavation of 18 shovel tests across this landform, extending well outside the project LOD, and pre-contact period artifacts were recovered from 15 of these. The revised site boundary is defined to the north by negative shovel tests and to the west _____ outside of the project LOD and was not fully delineated in those directions.

Pre-contact artifacts were found across the full extent of the site from east to west (E455 to E605) and north to south (N500 to N530), although generally in low numbers, with most shovel tests containing from one to three artifacts each. However, two distinct concentration areas were identified during the shovel testing. One is located at N515–530 E470–485, _____ and within the LOD, where the density ranged from 5–13 artifacts in three of the shovel tests in this area. The second, and higher artifact density, is in the eastern portion of site 18PR113 (outside of the LOD) where the site extends _____. This artifact concentration is located at N500 E575–605 where the shovel tests contained between 24 and 29 artifacts each.

A majority of the artifacts from the shovel tests were recovered from the intact Bt1 horizon (n=72), including the single unclassified sherd. The remainder of the artifacts were nearly equally recovered from the disturbed Ap horizon (n=15) and the intact and underlying Bt2 (n=17) and Bt3 horizons (n=16). Shovel test artifacts in the western part of the site and on the T1 landform were mainly recovered from the Bt2 and Bt3 horizons between 2.63 and 2.95 fbs and just above a C horizon of coarse sand. While no diagnostic artifacts were recovered in the lower Bt horizons, the deeper artifacts in the western portion of the site have some potential to represent Archaic deposits. In contrast, in shovel tests excavated farther to the east, artifacts gradually began occurring higher in the soil column moving away from the center of the T1 terrace and onto the T2 terrace. As the site ascends onto the T2 terrace, the cultural material appears to be mainly concentrated in the upper Ap and Bt1 horizons, with lesser densities of cultural material found in the lower 2.63–3.3 fbs levels of the Bt2 and Bt3 horizons like the western side of the site. One sand tempered sherd recovered from the Bt1 horizon in the far eastern portion of 18PR113 suggests that the upper culture-bearing levels in this part of the site are associated with the Woodland period.

Following the shovel testing at 18PR113, two 5 × 5 ft test units were excavated in an attempt to gather larger artifact samples from the site and obtain additional information regarding the potential for deeply buried artifacts. TU 1 was placed at N500 E534, in the eastern part of the site (outside of the LOD), to investigate the transition in artifact depths between the T1 and T2 terraces in this part of the site, and TU 2 was placed at N504 E494 in the western part of the site (within the LOD) to explore the deeper lithic deposits. Both test units were excavated in 0.25-ft levels, with cultural material recovered to depths of 1.7 fbs in TU 1 and 3.75 fbs in TU 2.

The project investigations on 18PR113 recovered a fairly substantial and diverse assemblage potentially associated with multiple pre-contact components in apparent intact contexts. The investigations also encountered a potential pre-contact pit feature in the eastern portion of the site, outside the LOD, where artifact density is highest. The abundance of debitage, cores, and staged bifaces, and the recovery of two hammerstones strongly suggests that a focus of the occupations was on the procurement and initial reduction of the cobbles from Paint Branch. Although the evidence is limited to a single pre-contact period ceramic sherd, the materials from the Bt1 horizon at least are likely to be associated with a Late Woodland period occupation and the Bt2 horizon may be associated with a Late Archaic period occupation. Site 18PR113 appears to retain cultural and stratigraphic integrity and clarity of deposits that would enable it to provide meaningful and interpretable data regarding the pre-contact period occupations of this area and Phase II investigations are recommended to determine whether the site is eligible for the NRHP. Only the western portion of the site is located within the project LOD, and although this area is characterized by a lower density of materials and no cultural features were encountered in this area, there is some potential for this area to contain features and more substantial deposits that would provide meaningful data related to regional research issues. Avoidance or further investigation is recommended for this portion of the project area.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18PR113

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☒ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☐ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☒ fire-cracked rock
☒ other lithics
☒ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☒ jasper
☒ chert
☒ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

Plain sand tempered sherd (1)

Small triangular projectile point (1)

5. Features present:

☒ yes
☐ no
☐ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☒ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The assemblage recovered from 18PR113 by the current project consists of a large number of flakes/shatter (n=299), as well as 56 FCR, one triangular PPK basal fragment, a graver, four bifaces, two retouched flakes, 13 cores, two hammerstones, and one ceramic sherd. The triangular PPK base was not classified by type as the temporal affiliation of this point is not determined. It was found in the Bt2 horizon in the west-central portion of the site, so there is some potential for it to be a Late Archaic period triangular type similar to the Beekman Triangle and others found in the Northeast and upper Mid-Atlantic region in Late Archaic contexts (e.g., Ebright 1992, Luckenbach et al. 2010, Stewart 1998). The single unclassified sherd is tempered with sand but is small and was not formally typed. The sherd was found in the Bt1 horizon in the eastern portion of the site. Although a little over half of the pieces of debitage are smaller than 2 cm, almost as many are larger, and all stages of lithic reduction appear to be well represented in the debitage category. Roughly two thirds of the debitage retains no cortex, but a third retains some cortex, strongly indicating that the initial material was in cobble form. Quartzite is by far the most well represented lithic material (n=237), quartz is the second most predominant lithic material (n=119), and 24 of the lithic artifacts are rhyolite. In general, the lithic material types appear to be similarly distributed across the site and within the horizons, with no evident horizontal or vertical patterns based on raw material type.

12. Form filled out by: Tracy L. Millis

Address/Company: TRC Environmental Corporation

Date: January 19, 2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18PR1190

County: Prince George's

A. DESIGNATION

1. Site Name: Paint Branch FS-2
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Late Archaic/Terminal Archaic short-term resource procurement site
4. Prehistoric x Historic _____ Unknown _____
5. Terrestrial x Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Beltsville (For underwater sites)
NOAA Chart No.: _____
- _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
- | | |
|--------------------------------|---|
| <u> </u> Allegany Plateau | <u> </u> Lancaster/Frederick Lowland |
| <u> </u> Ridge and Valley | <u> </u> Eastern Piedmont |
| <u> </u> Great Valley | <u> x </u> Western Shore Coastal Plain |
| <u> </u> Blue Ridge | <u> </u> Eastern Shore Coastal Plain |
9. Major Watershed/Underwater Zone (see instructions for map and list): Washington Metro

C. ENVIRONMENTAL DATA

10. Nearest Water Source: unnamed tributary of Paint Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
- | | |
|---|--------------------------------------|
| <u> </u> Ocean | <u> x </u> Freshwater Stream/River |
| <u> </u> Estuarine Bay/Tidal River | <u> </u> Freshwater Swamp |
| <u> </u> Tidal or Marsh | <u> </u> Lake or Pond |
| | <u> </u> Spring |
12. Distance from closest surface water: 6.7 meters (or 22 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: RcB

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input type="checkbox"/> Hillslope	<input checked="" type="checkbox"/> Other:
	<u>ridgenose</u>

18. Slope: 2-5%

19. Elevation: ____ meters (or 102 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input checked="" type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input checked="" type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other:

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input checked="" type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other:

23. Extent of disturbance:

☒ Minor (0-10%)
☐ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

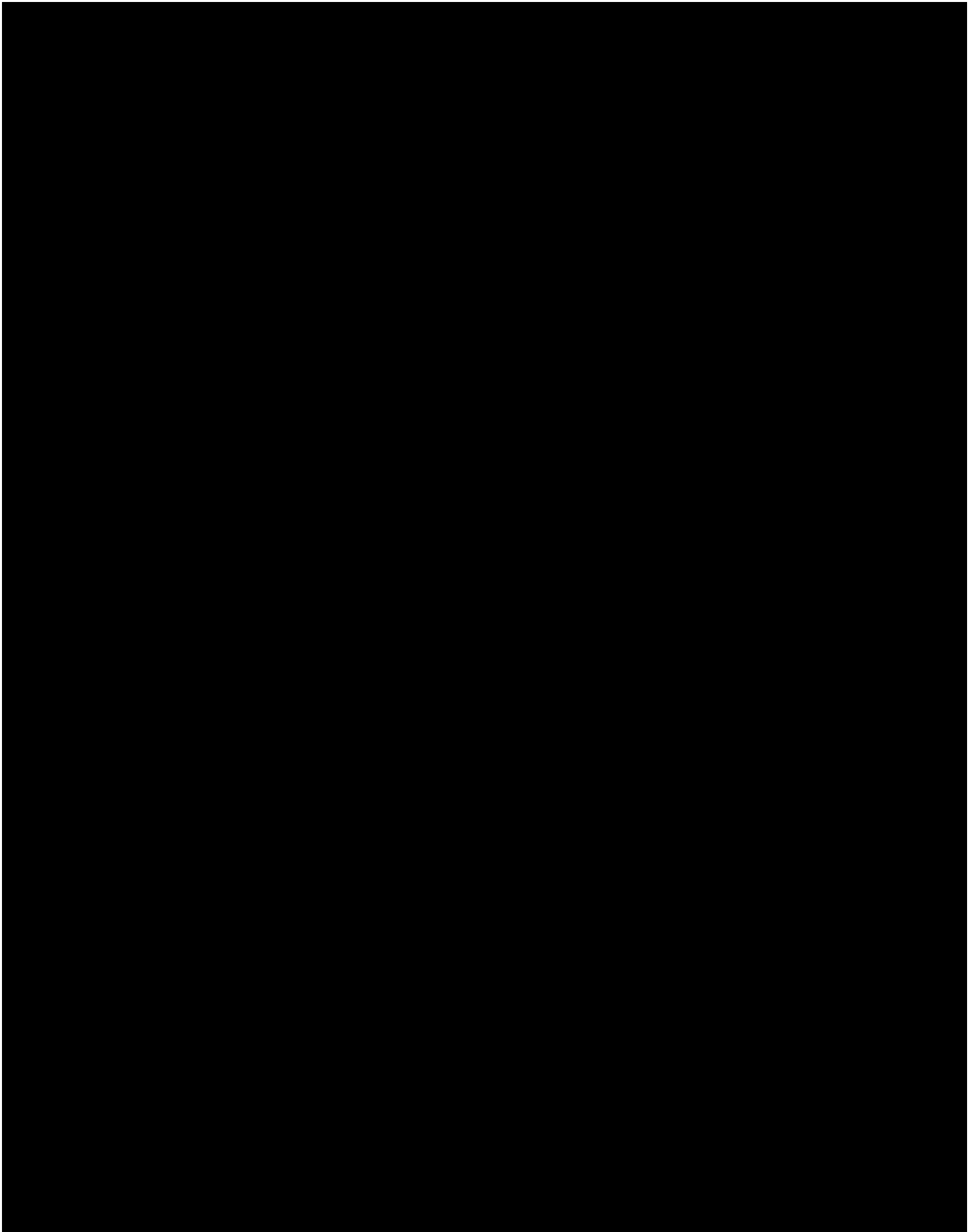
24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

The shovel tests encountered a consistent soil sequence, with slight variations in color and depth, involving a plowzone overlying three Bt horizons. One profile consisted of an Ap horizon (0–0.33 fbs) of dark brown (10YR 3/3) silt loam; a Bt1 horizon (0.33–1.0 fbs) of brown (10YR 4/3) gravelly silt loam; a Bt2 horizon (1.0–1.7 fbs) of strong brown (7.5YR 5/6) compact gravelly silty clay loam; and a Bt3 horizon (1.7–2.1+ fbs) of very pale brown (10YR 7/4) very compact gravelly silty clay loam. The soil sequence is underlain by gravels. Farther to the west along the T3 terrace, the shovel test profile consists of an Ap horizon (0–0.5 fbs) of very dark grayish brown (10YR 3/2) silt loam; a Bt1 horizon (0.5–1.0 fbs) of dark yellowish brown (10YR 4/4) silt loam; a Bt2 horizon (1.0–2.1 fbs) of yellowish brown (10YR 5/8) compact silty clay loam; and a Bt3 horizon (2.1–2.6+ fbs) of brownish yellow (10YR 6/6) mottled with very pale brown (10YR 7/3) very compact sandy loam.

26. Site size: 72.4 meters by 12.1 meters (or 237.6 feet by 39.6 feet)
-

Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.



D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

☐ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☒ Late Archaic
☒ Terminal Archaic
☒ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☒ Late Woodland

☐ CONTACT

HISTORIC:

☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☐ 1861-1900
☐ 20th century
☐ 1901-1930
☐ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other:

30. Purpose of investigation:

☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

☐ Site Inventory
☐ MHT Grant Project
☐ Other:

31. Method of sampling (check all applicable):

☐ Non-systematic surface search
☐ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

☒ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other:

32. Extent/nature of excavation: 17 1.5 ft diameter (45 cm) shovel tests were excavated across the site at 15 ft (4.6m) intervals. The shovel tests were excavated by natural soil strata to the C horizon Pleistocene deposits and screened through 1/4" mesh. Additionally, one 5 x5 ft test unit was excavated at the site by natural strata within 3 inch (0.25 ft) levels. Sixteen shovel tests and the test unit yielded cultural material.

F. SUPPORT DATA

33. Accompanying Data Form(s):

☒ Prehistoric
☐ Historic
☐ Shipwreck

34. Ownership: ☐ Private ☒ Federal ☐ State ☐ Local/County
☐ Unknown

35. Owner(s): US Department of Agriculture
Address: _____
Phone: _____
Email: _____

36. Tenant and/or Local Contact: Beltsville Agricultural Research Center
Address: _____
Phone: _____
Email: _____

37. Other Known Investigations: Wayne Clark conducted a survey of the BARC in 1973

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.

39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?
☐ Slides ☒ Field record ☐ Other: _____
☒ Photos ☐ Sonar
☒ Field maps ☐ Magnetic record

40. If yes, location of records: TRC Chapel Hill, NC

41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown

42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____

44. Site visited by Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 10/9/2020

45. Form filled out by: Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Artifacts were recovered from shovel tests across the full extent of the tested portions of the ridge and the T3 terrace from east to west (E325 to E520) and north to south (N495 to N555). The largest concentration of artifacts is located along the T3 terrace edge in the western portion of the site (outside the LOD), between N495–555 E325–400 (see Figure 7.48). Shovel tests in this area contained between nine and 37 artifacts each, with high counts found at N525 E400 (n=37), N540 E340 (n=32), N525 E385 (n=30), N525 E370 (n=24), and N510 E400 (n=20). High artifact density was also observed in the easternmost portion of the site, just inside the LOD. Artifact density in these three shovel tests ranged from 4–34 each, with shovel test N510 E500 yielding the highest count (n=34). The lowest artifact density occurred in the central part of the site, just to the west of the LOD between N510 E425–480.

A majority of the artifacts from the shovel tests were recovered from the intact Bt1 horizon (64%, or n=158), including a single soapstone vessel fragment, two biface fragments, two retouched flakes, four core and core fragments, one triangular PPK, and one Savannah River PPK. Nearly one-quarter of the artifacts were recovered from the Ap horizon (n=59), including two biface fragments, one Orient Fishtail PPK, one Savannah River PPK, and one retouched flake, slightly more than 10 percent of the artifacts were recovered from the intact and underlying Bt2 horizon (n=30), all of which consist of debitage and FCR.

Excavation of TU 1 produced 758 artifacts from three soil horizons ranging in depth from 0.25–1.8 fbs; no material was recovered from the lowest levels of the Bt horizon (1.80–2.05 fbs). Artifacts include 11 ceramic artifacts, three lithic tools, five quartz amorphous cores, two quartz bipolar cores, one quartz exhausted core, eight quartz core fragments, 647 pieces of chert (n=1), rhyolite (n=4), quartz (n=350), and quartzite (n=292) debitage, and 81 quartzite FCR. None of the ceramic artifacts are classifiable by type or temporal period; they include one eroded coarse sand tempered sherd, five residual sherds, and five pieces of fired clay. Lithic tools consist of two quartz retouched flakes and one quartz utilized flake.

The thin Ap horizon (0–0.25 fbs) yielded 71 artifacts, including 42 quartz flakes, 23 quartzite flakes, one chert flake, and five quartzite FCR. The likewise thin Bt1 horizon (0.25–0.50 fbs) contained 158 artifacts, including two quartz retouched flakes, three quartz amorphous cores, two quartz bipolar cores, two quartz core fragments, 72 quartz and 62 quartzite flakes, and 15 quartzite FCR. The thick Bt2 horizon (0.50–1.80 fbs) contained the highest density of artifacts recovered in TU 1 (n=529), which include one coarse sand tempered unidentified sherd, five residual sherds, five pieces of fired clay, one quartz utilized flake, two quartz amorphous cores, one quartz exhausted core, six quartz core fragments, 447 pieces of debitage (four rhyolite, 225 quartz, 218 quartzite), and 61 quartzite FCR.

No cultural features were observed on the site, although a fairly large number of FCR were recovered, suggesting the potential for the presence of intact cultural features. Only 25 FCR were found in the Ap horizon, but far more were found in the Bt1 (n=71) and Bt2 horizons (n=72). Almost half of the FCR were recovered from the test unit, with most of those (75%) found in the Bt2 horizon. The FCR found in shovel tests were all found in the west half of the site (E325–E400), and a larger portion of those (64%) were found in the Bt1 horizon.

The survey results suggest that site 18PR1190 could retain cultural and stratigraphic integrity and clarity of deposits that could provide meaningful and interpretable data regarding the Late Archaic, Terminal Archaic, and Woodland period occupations of this area. Specifically, the large amount of debitage, cores, staged bifaces, and expedient tools recovered during the shovel test and test unit excavations suggest that procurement and initial reduction of locally available cobbles was a major activity performed at the site. Additional investigations of site 18PR1190 could provide valuable and significant data regarding lithic raw material acquisition, reduction, and tool production within the Paint Branch watershed. Based on the results of the survey, site 18PR1190 is recommended potentially eligible for the NRHP, and avoidance or further investigation is recommended for this site.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18PR1190

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☒ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☐ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☒ fire-cracked rock
☐ other lithics
☒ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☒ chert
☒ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

Eroded coarse sand tempered sherd (1)
Residual sherd (5)
Savannah River projectile point (2)
Orient Fishtail projectile point (1)
Unclassified triangular projectile point (1)

5. Features present:

☐ yes
☒ no
☐ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

The Phase I assemblage from site 18PR1190 consists of 11 ceramic and 994 lithic artifacts associated with multiple pre-contact occupations of this fairly small landform. The single unclassified ceramic sherd is tempered with coarse sand but is too eroded and small to be formally typed. The possible soapstone vessel fragment is very small, thin, and well smoothed but does not have any curvature, so it is possible that it is a fragment of some other type of artifact. The lithic tools include four PPKs, four staged bifaces, and six utilized/retouched flakes. The Orient Fishtail and the broad bladed Savannah River PPKs are made of quartzite and the small triangular and narrow bladed Savannah River PPKs are made of quartz. Three of the utilized/retouched flakes have morphology that suggests they may have functioned as perforators or gravers, and the others may have been used for some type of scraping or cutting tasks based on morphology. The site has also produced a substantial collection of cores (n=22) and debitage (n=789), as well as 168 FCR. Although a majority of the pieces of debitage are smaller than 2 cm, a third of them are larger, and all stages of lithic reduction appear to be well represented in the debitage category. Almost all of the debitage retains no cortex, which is surprising considering the presumed cobble form of the initial material, and it is possible that this material was deposited elsewhere nearby or that those initial flakes were removed from the site for further reduction elsewhere. Only one of the lithic artifacts is chert, quartzite is by far the most well represented lithic material (n=593), quartz is the second most predominant lithic material (n=389), and 12 of the lithic artifacts are rhyolite. In general, the lithic material types appear to be similarly distributed across the site and within the horizons, with no evident horizontal or vertical patterns based on raw material.

Temporally diagnostic artifacts indicate occupations during the Late and Terminal Archaic periods, as represented by the Savannah River and Orient Fishtail PPKs and the soapstone vessel fragment, and possibly the triangular PPK, and undetermined Woodland period occupation(s) as represented by the ceramic artifacts. The Ap horizon produced one Savannah River PPK and one Orient Fishtail PPK; the Bt1 horizon produced the other Savannah River PPK, the triangular PPK, and the soapstone sherd; and the Bt2 horizon contained all of the ceramic items. All of the Archaic period artifacts were found in shovel tests so it is possible that vertical control was not as precise during excavation of some of the shovel tests, but it is unlikely that this would be true for all of the Late Archaic materials. For the survey materials, the specific strata contain deposits from a specific component across the site, however, it is unclear whether Woodland period deposits are stratigraphically below Archaic period deposits across the site. It is possible that the site strata/components are characterized by varying horizontal distribution of materials, similar to that observed on the other side of the tributary on 18PR113. With the exception of the Orient Fishtail PPK, which was found at the easternmost edge of the site, the Late Archaic period artifacts were found in the west half of the site and the Woodland period artifacts were found in the east half of the site.

12. Form filled out by: Tracy L. Millis

Address/Company: TRC Environmental Corporation

Date: January 18, 2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18PR1191

County: Prince George's

A. DESIGNATION

1. Site Name: Paint Branch FS-4
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Unidentified prehistoric short-term resource procurement site
4. Prehistoric x Historic _____ Unknown _____
5. Terrestrial x Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Beltsville (For underwater sites)
NOAA Chart No.: _____
- _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
- | | |
|--------------------------------|---|
| <u> </u> Allegany Plateau | <u> </u> Lancaster/Frederick Lowland |
| <u> </u> Ridge and Valley | <u> </u> Eastern Piedmont |
| <u> </u> Great Valley | <u> x </u> Western Shore Coastal Plain |
| <u> </u> Blue Ridge | <u> </u> Eastern Shore Coastal Plain |
9. Major Watershed/Underwater Zone (see instructions for map and list): Washington Metro

C. ENVIRONMENTAL DATA

10. Nearest Water Source: Paint Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
- | | |
|---|--------------------------------------|
| <u> </u> Ocean | <u> x </u> Freshwater Stream/River |
| <u> </u> Estuarine Bay/Tidal River | <u> </u> Freshwater Swamp |
| <u> </u> Tidal or Marsh | <u> </u> Lake or Pond |
| | <u> </u> Spring |
12. Distance from closest surface water: 25.6 meters (or 84 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: CF

17. Topographic Settings (check all applicable):

<input checked="" type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input type="checkbox"/> Hillslope	<input type="checkbox"/> Other: _____

18. Slope: 0%

19. Elevation: ____ meters (or 100 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input checked="" type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other: _____

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other: _____

23. Extent of disturbance:

☒ Minor (0-10%)
☐ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

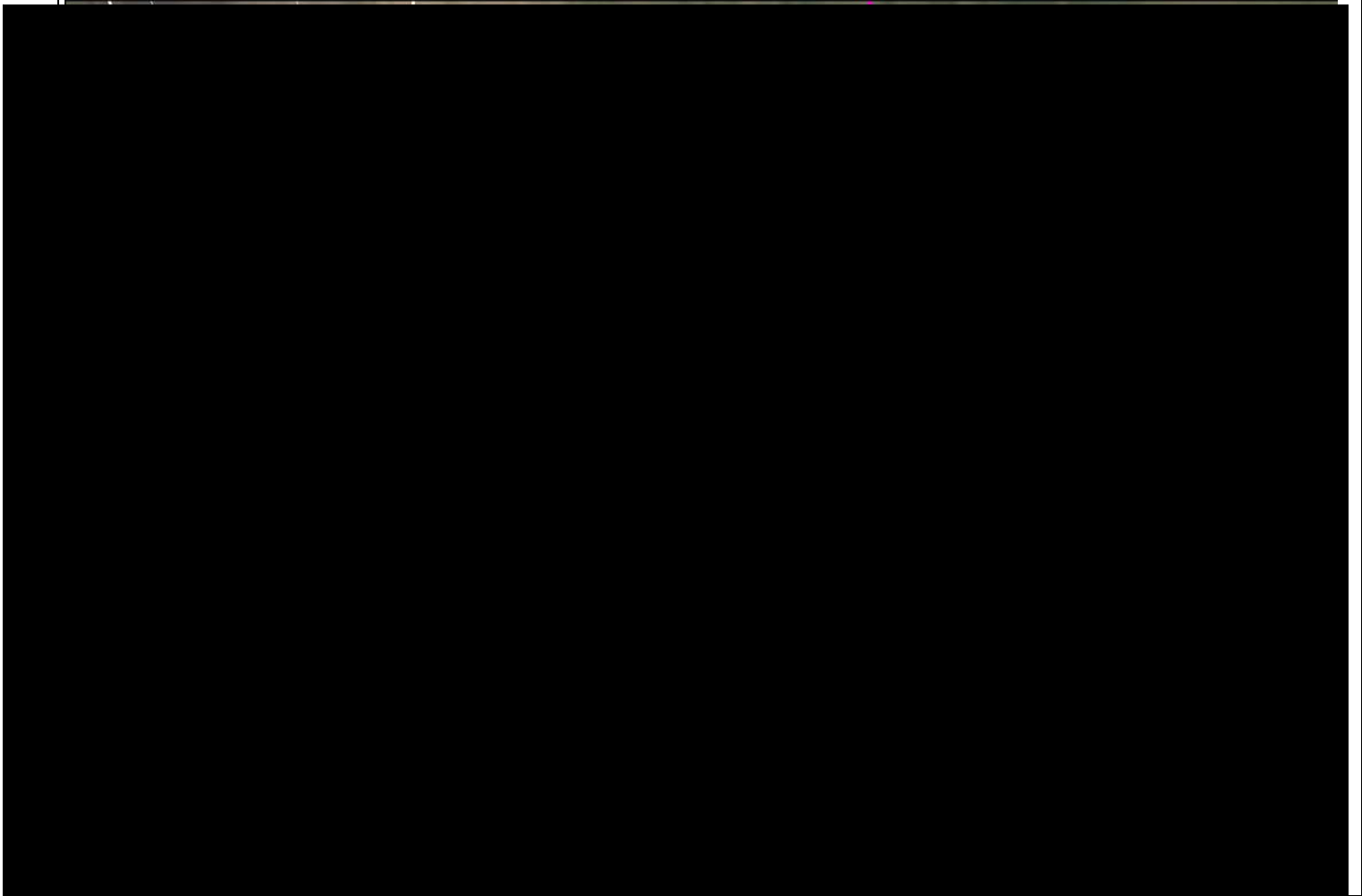


25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

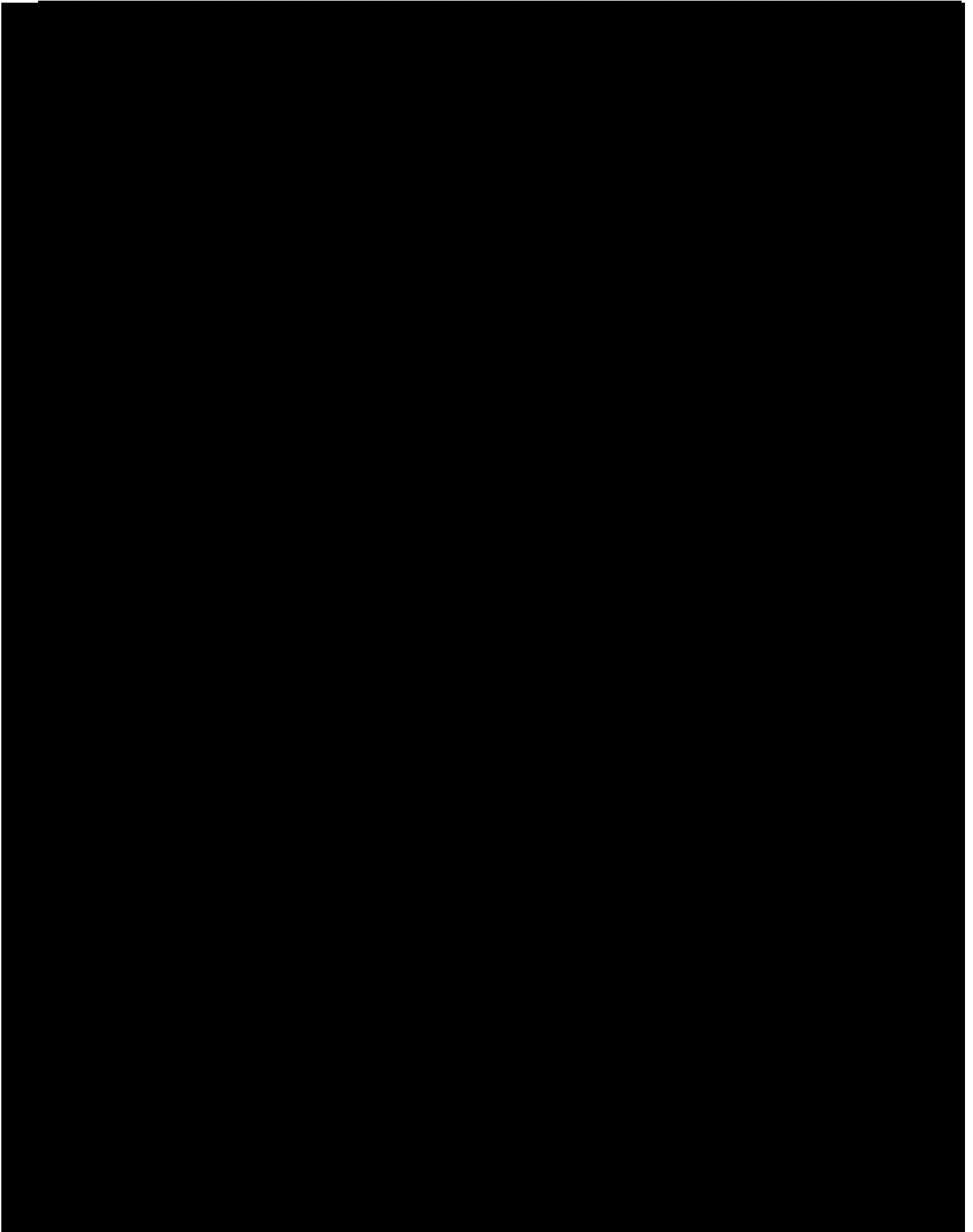
Two different stratigraphic sequences were observed in shovel tests on this site—one involving a silt loam Ap horizon (0–1.1 feet), a coarse sandy gravel C1 horizon (1.1–1.7 fbs), a sandy gravel C2 horizon (1.7–2.6 fbs), and a coarse sand C3 horizon (2.6–3.2+ fbs) and one sequence involving a silty clay loam Ap horizon (0–1.0 fbs), a coarse sandy loam C1 horizon (1.0–2.3 fbs), a gravelly sandy loam with mineral staining Cg2 horizon (2.3–2.8 fbs), a sandy clay Btg horizon (2.8–3.29 fbs), and basal gravel and cobbles (3.29+ fbs).

26. Site size: 46.7 meters by 38.6 meters (or 153 feet by 127 feet)

27. Draw a sketch map of the site and immediate environs, here or on separate sheet:



Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.



D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

- ☒ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

- ☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☐ 1861-1900
☐ 20th century
☐ 1901-1930
☐ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

- ☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

- ☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other:

30. Purpose of investigation:

- ☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

- ☐ Site Inventory
☐ MHT Grant Project
☐ Other:

31. Method of sampling (check all applicable):

- ☐ Non-systematic surface search
☒ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

- ☐ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other:

32. Extent/nature of excavation: 13 1.5 ft diameter (45 cm) shovel tests were excavated across the site at 25 ft (7.5m) intervals. The shovel tests were excavated by natural soil strata to the C horizon or Pleistocene soils and screened through 1/4" mesh. Three of the shovel tests yielded cultural material.

F. SUPPORT DATA

33. Accompanying Data Form(s):

- ☒ Prehistoric
☐ Historic
☐ Shipwreck

34. Ownership:

- ☐ Private
☐ Unknown

☒ Federal☐ State☐ Local/County

35. Owner(s): US Department of Agriculture
Address: _____
Phone: _____
Email: _____
36. Tenant and/or Local Contact: Beltsville Agricultural Research Center
Address: _____
Phone: _____
Email: _____
37. Other Known Investigations: Wayne Clark conducted a survey of the BARC in 1973

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.
39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?

<input type="checkbox"/> Slides	<input checked="" type="checkbox"/> Field record	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Photos	<input type="checkbox"/> Sonar	
<input checked="" type="checkbox"/> Field maps	<input type="checkbox"/> Magnetic record	
40. If yes, location of records: TRC, Chapel Hill, NC
41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown
42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____
44. Site visited by Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 10/9/2020
45. Form filled out by: Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

Site 18PR1191 is partially located in a fallow field and partially in a field planted in winter squash at the time of the survey. Three shovel tests in this area produced cultural material and negative shovel tests bound the site on all sides. The site is a low-density lithic scatter of unknown prehistoric age represented by one rhyolite biface, five quartzite flakes, and two quartz flakes. Four of the flakes were recovered from the plowzone (Stratum I), two flakes were recovered from Stratum II, and one biface was recovered from Stratum III. The artifacts may be related to multiple ephemeral visits to this area, and the site will be recommended not eligible for the NRHP.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18PR1191

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☒ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☐ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☐ fire-cracked rock
☐ other lithics
☐ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☐ chert
☒ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

5. Features present:

☐ yes
☒ no
☐ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

PREHISTORIC DATA FORM

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

12. Form filled out by: Tracy L. MillisAddress/Company: TRC Environmental CorporationDate: January 18, 2021

MARYLAND INVENTORY OF HISTORIC PROPERTIES
ARCHEOLOGICAL SITE SURVEY: BASIC DATA FORM

Date Filed: _____

Check if update: ☐



Maryland Department of Planning
Maryland Historical Trust
Division of Historical and Cultural Programs
100 Community Place
Crownsville, Maryland 21032

Site Number: 18PR1192

County: Prince George's

A. DESIGNATION

1. Site Name: Paint Branch FS-6
2. Alternate Site Name/Numbers: _____
3. Site Type (describe site chronology and function; see instructions):
Unidentified prehistoric short-term resource procurement site
4. Prehistoric x Historic _____ Unknown _____
5. Terrestrial x Submerged/Underwater _____ Both _____

B. LOCATION

6. USGS 7.5' Quadrangle(s): Beltsville (For underwater sites)
NOAA Chart No.: _____
- _____
(Photocopy section of quad or chart on page 4 and mark site location)

Latitude in decimal degrees _____ Longitude in decimal degrees _____

7. Maryland Archeological Research Unit Number: 11
8. Physiographic Province (check one):
- | | |
|--------------------------------|---|
| <u> </u> Allegany Plateau | <u> </u> Lancaster/Frederick Lowland |
| <u> </u> Ridge and Valley | <u> </u> Eastern Piedmont |
| <u> </u> Great Valley | <u> x </u> Western Shore Coastal Plain |
| <u> </u> Blue Ridge | <u> </u> Eastern Shore Coastal Plain |
9. Major Watershed/Underwater Zone (see instructions for map and list): Washington Metro

C. ENVIRONMENTAL DATA

10. Nearest Water Source: unnamed tributary of Paint Branch Stream Order: _____
11. Closest Surface Water Type (check all applicable):
- | | |
|---|--------------------------------------|
| <u> </u> Ocean | <u> x </u> Freshwater Stream/River |
| <u> </u> Estuarine Bay/Tidal River | <u> </u> Freshwater Swamp |
| <u> </u> Tidal or Marsh | <u> </u> Lake or Pond |
| | <u> </u> Spring |
12. Distance from closest surface water: 22.7 meters (or 75 feet)

C. ENVIRONMENTAL DATA [CONTINUED]

13. Current water speed: _____ knots 14. Water Depth: ____ meters

15. Water visibility: _____

16. SCS Soils Typology and/or Sediment Type: RcA, RcB, CcC

17. Topographic Settings (check all applicable):

<input type="checkbox"/> Floodplain	<input type="checkbox"/> Hilltop/Bluff
<input type="checkbox"/> Interior Flat	<input type="checkbox"/> Upland Flat
<input type="checkbox"/> Terrace	<input type="checkbox"/> Ridgetop
<input type="checkbox"/> Low Terrace	<input type="checkbox"/> Rockshelter/Cave
<input type="checkbox"/> High Terrace	<input type="checkbox"/> Unknown
<input checked="" type="checkbox"/> Hillslope	<input type="checkbox"/> Other: _____

18. Slope: 0-10%

19. Elevation: ____ meters (or 110 feet) above sea level

20. Land use at site when last field checked (check all applicable):

<input type="checkbox"/> Plowed/Tilled	<input type="checkbox"/> Extractive
<input type="checkbox"/> No-Till	<input type="checkbox"/> Military
<input checked="" type="checkbox"/> Wooded/Forested	<input type="checkbox"/> Recreational
<input type="checkbox"/> Logging/Logged	<input type="checkbox"/> Residential
<input checked="" type="checkbox"/> Underbrush/Overgrown	<input type="checkbox"/> Ruin
<input type="checkbox"/> Pasture	<input type="checkbox"/> Standing Structure
<input type="checkbox"/> Cemetery	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commercial	<input type="checkbox"/> Unknown
<input type="checkbox"/> Educational	<input type="checkbox"/> Other: _____

21. Condition of site:

☒ Disturbed
☐ Undisturbed
☐ Unknown

22. Cause of disturbance/destruction (check all applicable):

<input checked="" type="checkbox"/> Plowed	<input type="checkbox"/> Vandalized/Looted
<input checked="" type="checkbox"/> Eroded/Eroding	<input type="checkbox"/> Dredged
<input type="checkbox"/> Graded/Contoured	<input type="checkbox"/> Heavy Marine Traffic
<input type="checkbox"/> Collected	<input type="checkbox"/> Other: _____

23. Extent of disturbance:

☒ Minor (0-10%)
☐ Moderate (10-60%)
☐ Major (60-99%)
☐ Total (100%)
☐ % unknown

C. ENVIRONMENTAL DATA [CONTINUED]

24. Describe site setting with respect to local natural and cultural landmarks (topography, hydrology, fences, structures, roads). Use continuation sheet if needed.

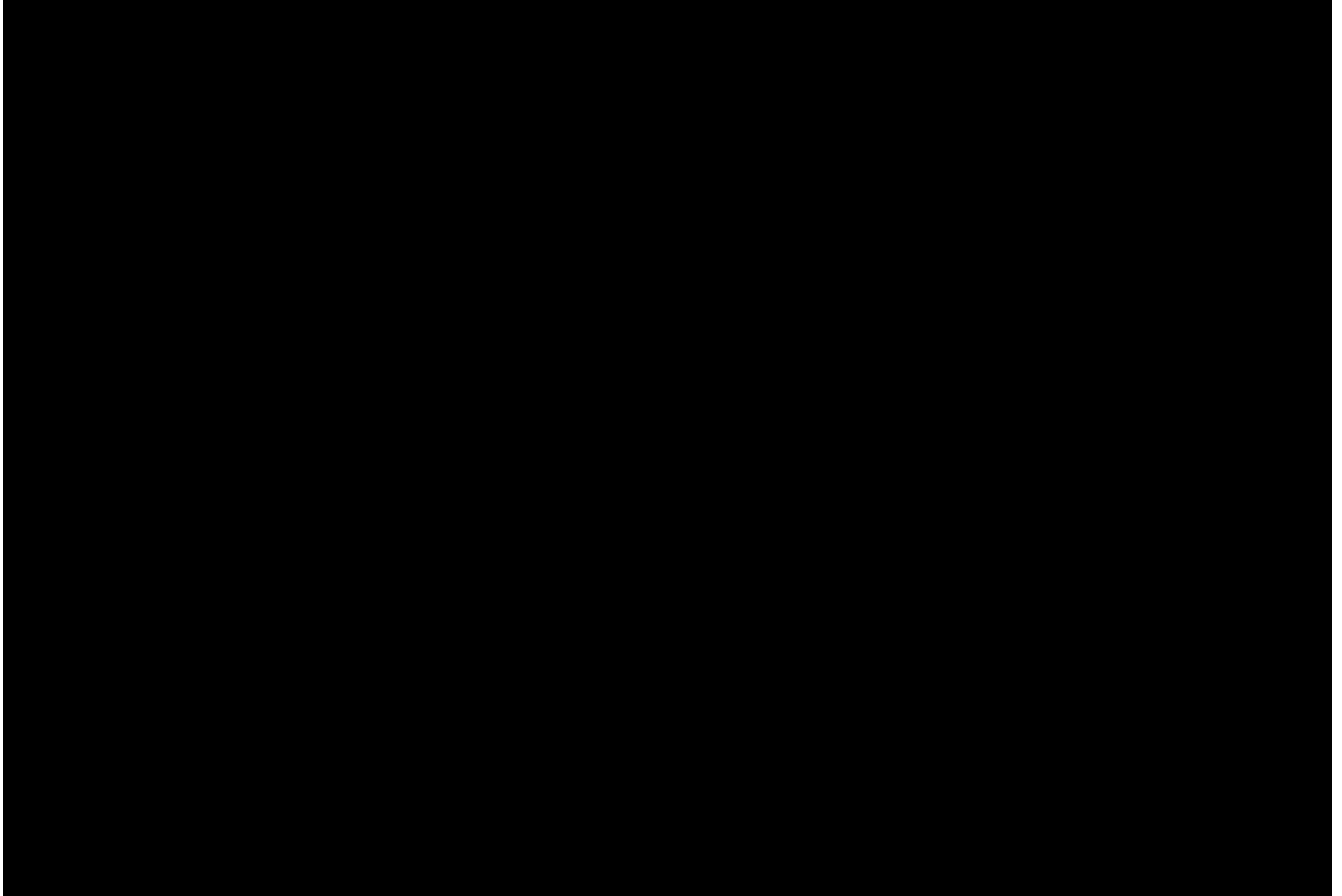


25. Characterize site stratigraphy. Include a representative profile on separate sheet, if applicable. Address plowzone (presence/absence), subplowzone features and levels, if any, and how stratigraphy affects site integrity. Use continuation sheet if needed.

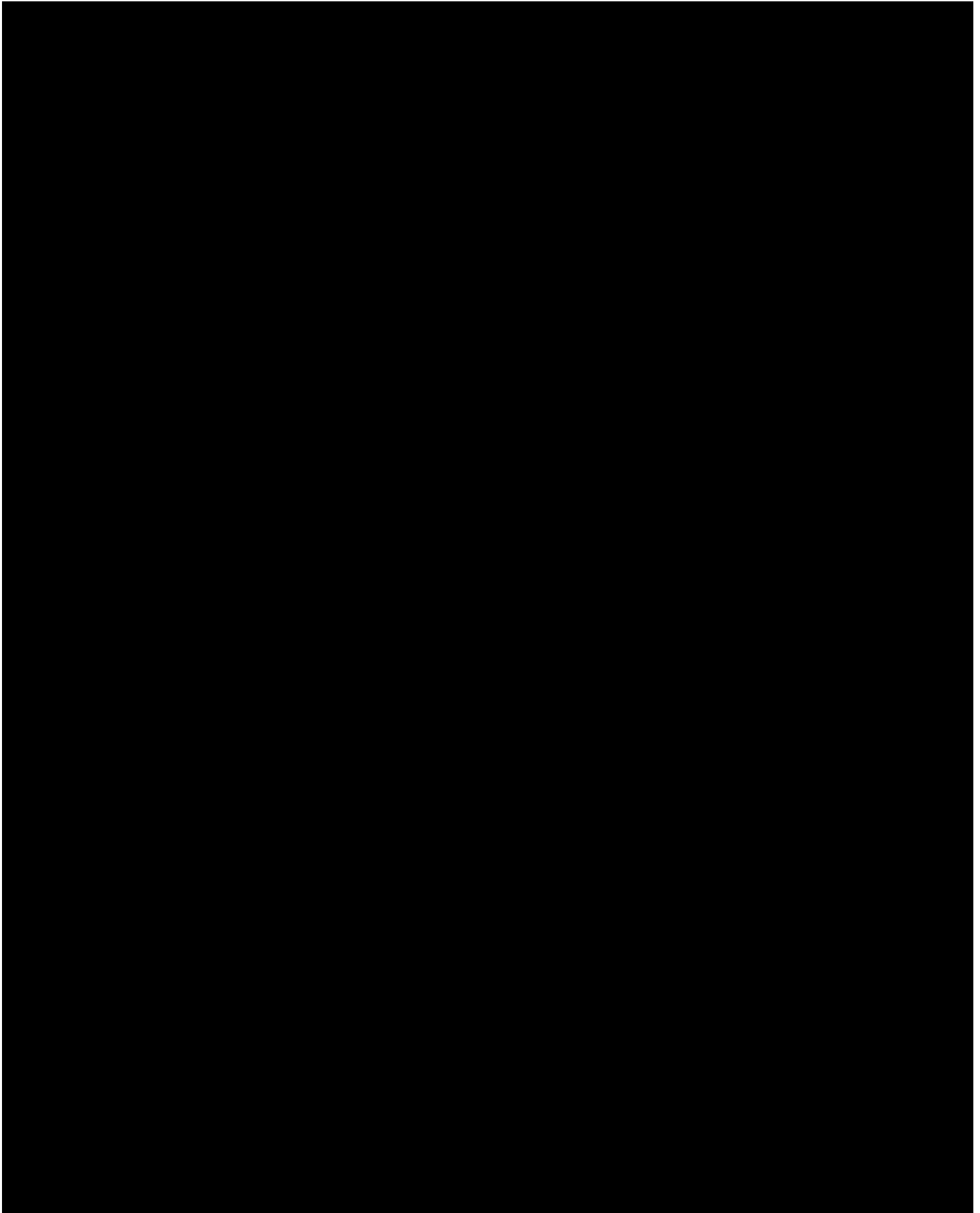
The stratigraphic sequence is characterized by a sandy loam Ap horizon (0–0.55 feet), a sandy loam Bw1 horizon (0.55–1.5 fbs), a sandy loam Bw2 horizon (1.5–1.85 fbs), a sandy loam Bw3 horizon (1.85–2.35 fbs), and a silt loam Btg horizon (2.35–2.6+ fbs).

26. Site size: 20.9 meters by 23.4 meters (or 69 feet by 77 feet)

27. Draw a sketch map of the site and immediate environs, here or on separate sheet:



Photocopy section of quadrangle map(s) and mark site location with heavy dot or circle and arrow pointing to it.



D. CONTEXT

28. Cultural Affiliation (check all applicable):

PREHISTORIC

- ☒ Unknown
☐ Paleoindian
☐ Archaic
☐ Early Archaic
☐ Middle Archaic
☐ Late Archaic
☐ Terminal Archaic
☐ Woodland
☐ Adena
☐ Early Woodland
☐ Middle Woodland
☐ Late Woodland
☐ CONTACT

HISTORIC:

- ☐ Unknown
☐ 17th century
☐ 1630-1675
☐ 1676-1720
☐ 18th century
☐ 1721-1780
☐ 1781-1820
☐ 19th century
☐ 1821-1860
☐ 1861-1900
☐ 20th century
☐ 1901-1930
☐ post-1930

☐ UNKNOWN**E. INVESTIGATIVE DATA**

29. Type of investigation:

- ☒ Phase I
☐ Phase II/Site Testing
☐ Phase III/Excavation
☐ Archival Investigation
☐ Monitoring

- ☐ Field Visit
☐ Collection/Artifact Inventory
☐ Report From Informant
☐ Other:

30. Purpose of investigation:

- ☒ Compliance
☐ Research
☐ Avocational
☐ Regional Survey

- ☐ Site Inventory
☐ MHT Grant Project
☐ Other:

31. Method of sampling (check all applicable):

- ☐ Non-systematic surface search
☐ Systematic surface collection
☐ Non-systematic shovel test pits
☒ Systematic shovel test pits

- ☐ Excavation units
☐ Mechanical excavation
☐ Remote sensing
☐ Other:

32. Extent/nature of excavation: Five 1.5 ft diameter (45 cm) shovel tests were excavated across the site at 25 ft (7.5m) intervals. The shovel tests were excavated by natural soil strata to the C horizon or Pleistocene soils and screened through 1/4" mesh. Two of the shovel tests yielded cultural material.

F. SUPPORT DATA

33. Accompanying Data Form(s):

- ☒ Prehistoric
☐ Historic
☐ Shipwreck

34. Ownership:

- ☐ Private
☐ Unknown

☒ Federal☐ State☐ Local/County

35. Owner(s): US Department of Agriculture
Address: _____
Phone: _____
Email: _____
36. Tenant and/or Local Contact: Beltsville Agricultural Research Center
Address: _____
Phone: _____
Email: _____
37. Other Known Investigations: Wayne Clark conducted a survey of the BARC in 1973

38. Primary report reference or citation:
Phase I Archaeological Survey for Three Proposed Stream Mitigation Sites for the I-495/I-270 Managed Lanes Study, Anne Arundel, Charles, and Prince George's Counties, Maryland. Authored by Heather Millis, Jeff Johnson, Tracy Millis, and Bruce Idol, 2021.
39. Other Records (e.g. slides, photos, original field maps/notes, sonar, magnetic record)?

<input type="checkbox"/> Slides	<input checked="" type="checkbox"/> Field record	<input type="checkbox"/> Other: _____
<input checked="" type="checkbox"/> Photos	<input type="checkbox"/> Sonar	
<input checked="" type="checkbox"/> Field maps	<input type="checkbox"/> Magnetic record	
40. If yes, location of records: TRC Chapel Hill, NC
41. Collections at Maryland Archeological Conservation (MAC) Lab or to be deposited at MAC Lab?
☒ Yes
☐ No
☐ Unknown
42. If NO or UNKNOWN, give owner: _____
location: _____
and brief description of collection: _____

43. Informant: _____
Address: _____
Phone: _____
Email: _____
44. Site visited by Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 10/9/2020
45. Form filled out by: Tracy L. Millis
Company/Group name: TRC Environmental Corporation
Address: 50101 Governors Drive Suite 250, Chapel Hill, NC
Phone: (919) 475-5507
Email: tmillis@trccompanies.com Date: 1/18/2021

46. Site Summary/Additional Comments (append additional pages if needed):

The site assemblage consists of a total of eight unmodified pieces of lithic debitage recovered from two shovel tests located 25 ft apart. These consist of one quartzite flake and one piece of quartz shatter found in the Bt1 horizon (0.5–1.55 fbs) and one piece of quartz shatter and five quartzite flakes found in the Bt2 horizon (1.0–1.7 fbs). No additional artifacts were found in the shovel tests excavated in this area, although isolated finds 18PRX284-2, 18PRX284-3, and 18PRX284-6 are located to the east, west, and north, respectively and all of the pre-contact period artifacts have the potential to be associated with the same general resources procurement activities conducted across the area probably during multiple pre-contact periods. No indications of any patterned or substantial artifact distributions or cultural features was observed on or near site 18PR1192. This low-density scatter of lithic materials dates to an undetermined pre-contact period (or periods) and does not appear to offer additional research potential. The site is recommended not eligible for the NRHP, and no further archaeological investigation of this site is recommended for this project as currently scoped.

MARYLAND ARCHEOLOGICAL SITE SURVEY: PREHISTORIC DATA FORM

Site Number 18PR1192

1. Site type (check all applicable):

☐ village
☐ hamlet
☐ base camp
☒ short-term resource procurement
☐ lithic quarry/extraction
☐ rockshelter/cave
☐ cairn

☐ earthen mound
☐ shell midden
☐ fish weir
☐ submerged prehistoric
☒ lithic scatter
☐ unknown
☐ other:

2. Categories of aboriginal material or remains at site (check all applicable):

☒ flaked stone
☐ ground stone
☐ stone bowls
☐ fire-cracked rock
☐ other lithics
☐ ceramics (vessels)
☐ other fired clay

☐ human skeletal remains
☐ faunal implements/ornaments
☐ faunal material
☐ oyster shell
☐ floral material
☐ unknown
☐ other:

3. Lithic materials (check all applicable):

☐ jasper
☐ chert
☐ rhyolite
☒ quartz
☒ quartzite
☐ chalcedony
☐ ironstone
☐ argillite

☐ steatite
☐ sandstone
☐ silicified sandstone
☐ ferruginous quartzite
☐ European flint
☐ basalt
☐ unknown
☐ other:

4. Diagnostics (choose from manual and give number recovered or observed):

5. Features present:

☐ yes
☒ no
☐ unknown

6. Types of features identified (check all applicable):

☐ midden
☐ shell midden
☐ postholes/molds
☐ house patterns
☐ palisade
☐ hearths

☐ chipping clusters
☐ refuse/storage pits
☐ burials
☐ ossuaries
☐ unknown
☐ other:

7. Flotation samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

8. Samples for radiocarbon dating collected:

☐ yes
☒ no
☐ unknown

Dates and Lab Reference Nos. _____

9. Soil samples collected:

☐ yes
☒ no
☐ unknown

analyzed:

☐ yes, by _____
☐ no
☐ unknown

10. Other analyses (specify): _____

11. Additional comments:

12. Form filled out by: Tracy L. Millis

Address/Company: TRC Environmental Corporation

Date: January 18, 2021

APPENDIX 3
ABBREVIATED RESUMES FOR KEY PERSONNEL

HEATHER MILLIS, RPA

EDUCATION

M.A., Anthropology, State University of New York at Albany, 1994

B.A., History, University of Maryland, 1986

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Register of Professional Archaeologists, 2001

AREAS OF EXPERTISE

Heather Millis has management and technical experience in the following areas:

- Archival Research/Land Use Studies
- Archaeological Survey, National Register Evaluation, and Data Recovery
- Cemetery Delineation

REPRESENTATIVE EXPERIENCE

Ms. Millis is the Office Practice Leader in TRC's Chapel Hill, North Carolina office and has extensive experience in all types of cultural resource investigations. She has over 30 years of professional experience serving as Principal Investigator, Field Director, or Historian on hundreds of projects across the eastern United States. As Office Manager she is responsible for all aspects of project development and management, including proposal and research design development, project planning, implementation, and management, field and laboratory research, report preparation, and coordination with clients and agencies. Ms. Millis also serves as a QA/QC reviewer, copyeditor, and technical writer for TRC's Chapel Hill office. Following is a summary of her most recent projects:

Maryland Department of Transportation, State Highway Administration – MD (Contract Liaison/Project Manager/Principal Investigator): 1997–present

Ms. Millis serves as Project Manager and Principal Investigator for TRC's cultural resources contract with the Maryland State Highway Administration. She has managed over 70 work orders assigned to TRC by the SHA for transportation projects in Maryland under multiple consecutive contracts. As the contract liaison she is responsible for developing proposals, work plans, and budgets for each task order, submitting invoices, and interfacing with the SHA staff and subconsultants. As Principal Investigator for task orders involving archaeological investigation, she is also responsible for directing or supervising fieldwork, supervising laboratory work, performing analysis, authoring technical and non-technical reports, and interfacing with the SHA and landowners. This work has involved all phases of archaeological research, including survey, testing, and data recovery investigations of historic and prehistoric sites from western Maryland to the eastern shore and in rural and developed settings. In addition, this work has included survey and testing of multiple prehistoric period sites in northern Virginia.

First Solar Development LLC – Dinwiddie County, VA (Project Manager/Principal Investigator): January 2019–present

Ms. Millis serves as Principal Investigator and Project Manager for survey of areas totaling over 2,000 acres for the proposed Lily Pond solar farm located within portions of four different Civil War battlefields. Her responsibilities include coordinating with the client and agencies, supervising the fieldwork, lab processing, and data analysis, co-authoring the deliverables, and mitigation planning.

Invenergy – King William County, VA (Project Manager/Principal Investigator): October 2018–present

Ms. Millis serves as Principal Investigator and Project Manager for survey of areas totaling over 1,300 acres and Phase II investigations of three historic period sites for the proposed Sweet Sue solar farm. Her responsibilities include coordinating with the client and agencies, supervising the fieldwork, lab processing, and data analysis, and co-authoring the deliverables.

First Solar Development LLC – Sussex County, VA (Project Manager/Principal Investigator): October 2018–present

Ms. Millis serves as Principal Investigator and Project Manager for survey of areas totaling over 1,200 acres for the proposed Waverly solar farm. Her responsibilities include coordinating with the client and agencies, supervising the fieldwork, lab processing, and data analysis, and co-authoring the deliverables.

Cypress Creek Renewables LLC – Orange County, VA (Project Manager/Principal Investigator): April 2018–March 2020

Ms. Millis served as Principal Investigator and Project Manager for survey of areas totaling 686 acres within the NRHP eligible Mine Run Battlefield Historic District for the proposed Sol Madison solar farm. Her responsibilities include coordinating with the client and agencies, supervising the fieldwork, lab processing, and data analysis, authoring the deliverables, and mitigation planning.

Cypress Creek Renewables LLC – Jones County, NC (Project Manager/Principal Investigator): October 2017–October 2018

Ms. Millis served as Principal Investigator and Project Manager for survey of areas totaling 1,052 acres within the NRHP listed Bryan-Bell/Oakview Plantation for the proposed Trent River solar farm. Her responsibilities included coordinating with the client and SHPO, supervising the fieldwork, lab processing, and data analysis, and authoring the deliverables.

Southeastern Archaeological Services and USACE Wilmington District – Various Counties, NC and VA (Project Manager/Principal Investigator): October 2016–September 2018

Ms. Millis served as Principal Investigator and Project Manager for survey of 14 wildlife management areas totaling 1,566 acres within the Kerr Lake Reservoir. Her responsibilities included coordinating with the clients and agencies, supervising the fieldwork, lab processing, data analysis, and report writing, and co-authoring the deliverables.

Rover Pipeline LLC – Multiple Counties, OH, PA, and WV (Principal Investigator): September 2014–present

Ms. Millis serves as Principal Investigator for cultural resources survey and mitigation efforts for the Rover Pipeline project, consisting of about 500 linear miles of corridor, ancillary facility locations, and access roads across parts of Ohio, Pennsylvania, and West Virginia. Her responsibilities include interfacing with the client, SHPOs, FERC, TRC staff, and subconsultants, supervising the fieldwork, lab processing and analysis, and report writing tasks, and authoring portions of the technical reports, resource reports for FERC filings, and mitigation deliverables.

EDUCATION

M.A., Anthropology, State University of New York at Albany, 1993
B.S., Anthropology, Virginia Commonwealth University, 1984

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Register of Professional Archaeologists, 1995

AREAS OF EXPERTISE

Mr. Millis has technical expertise in the following general areas:

- Archaeological Survey, Testing, and Data Recovery Investigations
- Prehistoric Ceramic Analysis
- Historical and Archival Research

REPRESENTATIVE EXPERIENCE

Mr. Millis is a Senior Archaeologist in TRC's Chapel Hill, North Carolina office with over 35 years of experience in a range of cultural resource studies. Mr. Millis has served in supervisory and technical positions for over 150 projects across the eastern United States. As Project Manager he has been responsible for all aspects of project development and management, including proposal development, project planning and implementation, supervising field and laboratory research, report preparation, and coordination with clients and agencies. Mr. Millis has experience in cultural resource investigations for road, pipeline, and transmission line corridors; residential and commercial development; and a variety of projects on military installations. He has authored, co-authored, or contributed to over 100 technical reports and papers.

MVP Southgate Gas Transmission Project, Pittsylvania County, VA, and Alamance and Rockingham Counties, NC (Field Director): 2018–present

Mr. Millis currently serves as Cultural Resources Field Director for cultural resources studies of a 73 mile long corridor and associated ancillary facilities for the MVP Southgate Gas Transmission project. Mr. Millis is responsible for directing all aspects of fieldwork and laboratory analysis, research, and compliance reporting.

Spectra Energy, Cultural Resources Survey for NEXUS Gas Transmission Project, Multiple Counties, OH and MI (Principal Investigator): 2014–present

Mr. Millis currently serves as Cultural Resources Project Director for cultural resources studies of a 255 mile long corridor and associated ancillary facilities for the NEXUS Gas Transmission project in multiple counties in Ohio and Michigan. Mr. Millis is responsible for directing all aspects of fieldwork and laboratory analysis, conducting research, and authoring the report for compliance.

Spectra Energy/East Tennessee Natural Gas, Line 3400-1 Anomaly Investigations, Russell and Dickenson Counties, VA (Principal Investigator): 2011

Mr. Millis conducted cultural resources investigations of four existing access roads and four locations of the Line 3400-1 pipeline in Russell and Dickenson counties. As Principal Investigator, he was responsible for directing field investigations and authored the compliance report.

Spectra Energy/East Tennessee Natural Gas, Line 3300-3 Anomaly Investigations, Smyth County, VA (Principal Investigator): 2011

Mr. Millis conducted cultural resources investigations of an existing access road and a portion of the Line 3300-3 pipeline in Smyth County that will require excavation to determine the nature of an anomaly and potential repairs to the pipeline. As Principal Investigator, he was responsible for directing field investigations and authored the compliance report.

Draper Aden Associates, Cultural Resources Survey and Evaluation for the Wildwood Commerce Park, Carroll County, VA (Project Manager and Principal Investigator): 2011–2012

Mr. Millis served as Project Manager and Principal Investigator for a cultural resources survey of the 167-acre project area as well as the evaluation of site 44CA0135, a Late Woodland campsite. Mr. Millis was responsible for directing all aspects of fieldwork and laboratory analysis, conducting the background research, and authoring the report for compliance.

Columbia Gas Transmission Corporation, Line VM-108 Replacement- Sussex, VA (Principal Investigator and Project Manager): 1998

Mr. Millis conducted archaeological survey of a 6.9-mile corridor and associated ancillary facilities of the Line VM-108 Replacement project in Sussex County. As Principal Investigator and Project Manager, he was responsible for directing field investigations and supervising laboratory analyses and co-authored the compliance report.

Virginia Department of Historic Resources, Historic Architectural and Archaeological Survey, Bedford County, VA (Project Manager): 1998

Mr. Millis served as Project Manager for an architectural survey of 280 properties and an archaeological survey of 300 acres in Bedford County, VA. The main objective of this project was to gather data on the cultural resources present in the county, and specifically within targeted development areas that are projected for growth in commercial and residential development. Extensive historical background information was gathered in order to document the types of historic properties and archaeological resources expected for each development area and to prioritize the development areas in terms of development pressure and archaeological significance. A comprehensive overview of various property types was developed to provide the baseline data needed for developing a historic preservation plan.

STV, FBI Academy Archaeological Assessment- Quantico, VA (Principal Investigator and Project Manager): 1997

Mr. Millis conducted reconnaissance survey and archaeological assessment of three parcels totaling 75 acres within the FBI Academy Complex near the Quantico Marine Corps Base in Stafford County.

BRUCE S. IDOL

EDUCATION

M.A., Anthropology, Wake Forest University, 1997

B.A., Anthropology, University of North Carolina at Greensboro, 1992

B.A., English Literature, Appalachian State University, 1990

PROFESSIONAL REGISTRATIONS/CERTIFICATIONS

Register of Professional Archaeologists, 2001–2019

AREAS OF EXPERTISE

Mr. Idol has project management and technical experience in the following general areas:

- Archaeological project planning and implementation
- Archaeological survey, testing and data recovery excavations
- Prehistoric ceramic analysis
- Archaeological report preparation

REPRESENTATIVE EXPERIENCE

Mr. Idol has 23 years of experience conducting and reporting archaeological surveys, site evaluations, and data recovery excavations. Mr. Idol's experience includes extensive service to public and private-sector clients including the National Park Service (NPS), U.S. Army Construction and Engineering Research Laboratories (CERL), the U.S. Army Corps of Engineers (COE), U.S.D.A. Forest Service (NFS), the North Carolina DOT, and the Federal Highway Administration Eastern Federal Lands Highway Division (FHWA EFLHD). He currently serves as a Senior Archaeologist in the Chapel Hill Office with responsibilities including fieldwork direction, artifact analysis, and reporting.

Data Recovery Excavations at 31JK615– Jackson County, NC (Field Director: 2019 – present)

Mr. Idol is presently serving as Field Director for data recovery excavations at a prehistoric through Historic Cherokee archaeological site.

Maryland DOT SHA, Survey and Site Evaluations within the George Washington Memorial Parkway for the I-495/I-270 Managed Lanes Study– Fairfax County, VA (Field Director: 2019)

Mr. Idol served as Field Director for an intensive survey and testing of multiple sites within the George Washington Memorial Parkway.

Data Recovery Excavations at 31JK569 and 31JK570– Jackson County, NC (Field Director: 2019)

Mr. Idol served as Field Director for data recovery excavations at two prehistoric through Historic Cherokee archaeological sites.

North Carolina DOT, Data Recovery Excavations at 31GH635– Graham County, NC (Field Director: 2017 – present)

Mr. Idol is presently serving as Field Director for data recovery excavations at a prehistoric through Historic Cherokee archaeological site.

North Carolina DOT, Data Recovery Excavations at 31JK164 and 31JK487 – Jackson County, NC (Field Director: 2017)

Mr. Idol served as Field Director for data recovery excavations at two prehistoric through Historic Cherokee archaeological sites.

North Carolina DOT, Testing at 31MA685 and Data Recovery Excavations at 31MA684 and 31MA774 – Macon County, NC (Field Director: 2014 – 2016)

Mr. Idol served as Field Director for testing and data recovery excavations at three prehistoric through Historic Cherokee archaeological sites.

FHWA EFLHD, Data Recovery Excavations at 31JK443 and 31JK553 – Jackson County, NC (Field Director: 2012)

Mr. Idol served as Field Director for data recovery excavations at two prehistoric through Historic Cherokee archaeological sites.

U.S. Army Corps of Engineers, Roanoke River Flood Reduction Project – Roanoke, VA (Field Director: 2001 – 2008)

Mr. Idol served as Field Director for data recovery excavations at five large prehistoric sites: 44RN2, 44RN72, 44RN219, 44RN221, and 44RN356, as well as testing excavations at 44RN2, 44RN72, 44RN221, and at the Blue Ridge Industrial Park. In this position, he oversaw all stages of fieldwork, analysis, and report preparation, and worked closely with City of Roanoke engineers and COE personnel.

North Carolina DOT, Data Recovery Excavations at 31AX37 – Alexander County, NC (Field Director: 2007 – 2009)

Mr. Idol served as Field Director for site data recovery excavations at 31AX37, and oversaw all stages of fieldwork, analysis, and report preparation.

National Forests in North Carolina, Archaeological Investigations at Bearpen Branch (31TV845), – Transylvania County, NC (Field Director: 2005 – 2006)

Mr. Idol served as Field Director for archaeological investigations at the Bearpen Branch site and authored the report for compliance.

Arcadis/FHWA/National Park Service, Foothills Parkway Section 8B Archaeological Survey – Sevier and Cocke counties, TN (Field Director: 2007)

Mr. Idol directed the archaeological survey of the proposed Foothills Parkway Section 8B corridor.

EDUCATION

B.A., Anthropology, Appalachian State University, 2010

AREAS OF EXPERTISE

Jeff Johnson has technical experience in the following areas:

- Archaeological Inventory Surveys
- Archaeological Site Assessments
- Archaeological Data Recovery
- Cemetery Delineation Survey

REPRESENTATIVE EXPERIENCE

Mr. Johnson is an Archaeological Field Director in TRC's Chapel Hill, North Carolina office and has experience in all phases of cultural resource investigations. He has seven years of professional experience serving as an Archaeological Technician, Archaeological Crew Chief, and Archaeological Field Director in the Southeast, Mid-Atlantic, and Midwestern U.S. He assists in the recovery of cultural resources, helps process recovered artifacts in the laboratory, assists with report writing and graphics production, assists with field project coordination, and manages a field crew.

Invenergy, Sweet Sue Solar Project (Field Director): 2020

Mr. Johnson served as a Field Director for Phase II archaeological investigation of an early historic period site for the prospective solar farm. He managed a cultural field crew and assisted in the identification and recordation of cultural resources.

NextEra, Cultural Resources Survey for MVP Southgate Project, Alamance and Rockingham Counties, NC and Pittsylvania County, VA (Field Director/Crew Chief): 2018–present

Mr. Johnson serves as a Field Director for ongoing cultural resources studies for the prospective pipeline corridor and associated facilities. He manages a cultural field crew and assists in the identification and recordation of cultural resources.

Vaughn and Melton, M-64 Pipeline Survey (Field Director): 2019

Mr. Johnson served as a Field Director for cultural resources surveys for the prospective pipeline corridor and associated facilities. He managed a cultural field crew and assisted in the identification and recordation of cultural resources.

Maryland DOT/SHA, Phase II Investigation of 18PR750, Prince George's County, MD (Field Director): December 2018

Mr. Johnson served as Field Director for an archaeological investigation of a prehistoric site within the planned right-of-way of a highway widening project. He managed a cultural field crew, assisted with the report writing, and created GIS based graphic illustrations.

Spectra Energy, Cultural Resources Studies for NEXUS Project, Multiple Counties, OH (Crew Chief): 2014–2019

Mr. Johnson served as a Crew Chief for cultural resources survey and testing for the prospective pipeline corridor and associated facilities. He managed a cultural field crew and assisted in the identification of cultural resources.

NCDOT, Brevard Road Survey (Field Director): 2018

Mr. Johnson served as a Field Director for cultural resources survey for the planned road improvements. He managed a cultural field crew and assisted in the identification and recordation of cultural resources.

Various Clients, Cemetery Delineation Survey, Multiple Counties, NC (Crew Chief): 2016

Mr. Johnson served as a Crew Chief for cemetery delineation surveys for various clients. He assisted in the identification and delineation of cemeteries.

Chatham Parks, Cultural Resources Survey for Chatham Parks Development, Chatham County, NC (Crew Chief): 2016–present

Mr. Johnson served as a Crew Chief for a cultural resources survey for the prospective Chatham Parks housing development. He managed a cultural field crew and assisted in the identification of cultural resources.

Duke Energy, Cultural Resources Survey for Sanford Mines Project, Lee and Chatham Counties, NC (Crew Chief): 2015

Mr. Johnson served as a Crew Chief for a cultural resources survey for the proposed project. He managed a cultural field crew and assisted in the identification of cultural resources.

Maryland DOT/SHA, Cultural Resources Survey and Archaeological Site Assessment for the Monocacy National Battlefield, Frederick County, MD (Field Technician): 2015

Mr. Johnson served as a Field Technician for a cultural resources survey and Archaeological Site assessment for the Monocacy National Battlefield. He assisted in the recovery of cultural resources.

Energy Transfer, Cultural Resources Survey for ROVER Project, Multiple Counties, OH (Crew Chief and Field Technician): 2014

Mr. Johnson served as a Crew Chief and Field Technician for cultural resources survey for the prospective pipeline corridor and associated facilities. He managed a cultural field crew and assisted in the identification of cultural resources.

Maryland DOT/SHA, Cultural Resources Survey and Archaeological Site Assessment for the Folck's Mill Site, Cumberland County, MD (Field Technician): 2014

Mr. Johnson served as a Field Technician for a cultural resources survey and Archaeological Site assessment for the Folck's Mill Site. He assisted in the recovery of cultural resources.

Spectra Energy, Cultural Resources Survey for Sabal Trail Transmissions Project, Multiple Counties, GA (Field Technician): 2013–2014

Mr. Johnson served as a Field Technician for a cultural resources survey for the prospective pipeline corridor and associated facilities. He assisted in the identification of cultural resources.



I-495 & I-270 Managed Lanes Study

CULTURAL RESOURCES TECHNICAL REPORT

Volume 9:

Documentation of the Morningstar Tabernacle No. 88
Moses Hall and Cemetery (M:35-212) for the I-495 &
I-270 Managed Lanes Study and Remote Sensing of
the Morningstar Cemetery and the Gibson Grove
A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland
December 2021



U.S. Department
of Transportation

**Federal Highway
Administration**

MDOT MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION

MARYLAND AND WASHINGTON, D.C. REPOSITORIES FOR MDOT SHA ARCHAEOLOGICAL REPORTS

Department of Anthropology

The American University
Battelle - Tompkins, Room T-21
4400 Massachusetts Avenue, N.W.
Washington, D.C. 20016

Department of Anthropology

Marist Hall, Room 8
Catholic University of America
Washington, D.C. 20064

Maryland Historical Trust

Maryland Department of Planning
100 Community Place
Crownsville, MD 21032-2023

Jefferson Patterson Park & Museum

10515 Mackall Road
St. Leonard, MD 20685

National Park Service

Regional Archaeology Program Laboratory
Museum Resources Center
3300 Hubbard Road
Landover, MD 20785

St. Mary's City Commission

Archaeology Division
P.O. Box 39
St. Mary's City, MD 20686

Anthropology & Environmental Studies

Washington College
300 Washington Avenue
Chestertown, MD 21620

Edward H. Nabb Research Center for Delmarva History and Culture

Salisbury University
1101 Camden Avenue PP 190
Salisbury, MD 21801

Fairfax County Park Authority

James Lee Center 2855
Annandale Road
Falls Church, VA 22042

Maryland National Capital Park and Planning Commission

Office of History and Archaeology
Needwood Mansion
6700 Needwood Road
Derwood, MD 20855
(Montgomery County reports only)

Maryland National Capital Park and Planning Commission Natural and Historic Resources Division

801 Watkins Park Drive
Upper Marlboro, MD 20772
(Prince George's County reports only)

C&O Canal National Historic Park

National Park Service
Resources Management
1850 Dual Highway, Suite 100
Hagerstown, MD 21740
(Allegany County and Washington County
reports only)

Anne Arundel County Department of Planning & Code Enforcement

Heritage Office Center
2664 Riva Road
MS-6402
Annapolis, MD 21401
(Anne Arundel County reports only)

Calvert County Department of Planning and Zoning

174 Main Street
Prince Frederick, MD 20678
(Calvert County reports only)

St. Mary's County Office of Planning and Zoning

P.O. Box 653
Leonardtown, MD 20650
(St. Mary's County reports only)

**CULTURAL RESOURCES TECHNICAL REPORT VOLUME 9:
DOCUMENTATION OF THE MORNINGSTAR TABERNACLE
NO. 88 MOSES HALL AND CEMETERY (M:35-212) FOR THE
I-495 & I-270 MANAGED LANES STUDY AND REMOTE
SENSING OF THE MORNINGSTAR CEMETERY AND THE
GIBSON GROVE A.M.E. ZION CHURCH (M:29:39)
MONTGOMERY COUNTY, MARYLAND**

**ARCHAEOLOGICAL REPORT NUMBER 560
Project Number AW073A13**

Prepared for:



707 North Calvert Street
Baltimore, Maryland 21202

Prepared by:

Jennifer Falchetta, M.A., RPA
Patricia Slovinac, M.A.
Katherine McCarthy Watts, M.A.
Frank Mikolic, M.A., RPA
Russell Stevenson, M.A.

A.D. Marble
2200 Renaissance Boulevard, Suite 260
King of Prussia, Pennsylvania 19406

December 2021

Abstract

The Maryland Department of Transportation State Highway Administration (MDOT SHA) requested that A.D. Marble conduct cemetery documentation at the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212; hereafter, Morningstar Cemetery) and geophysical surveys at Morningstar Cemetery and the Gibson Grove Church, now the First Agape African Methodist Episcopal (A.M.E.) Zion Church (M: 29:39; hereafter, Gibson Grove Church) in Montgomery County, Maryland. The project study area (hereafter called the archaeology survey area) is located within Maryland Archeological Research Unit 12, the Potomac Drainage, and includes the cemetery parcel, adjacent MDOT SHA Right-of-Way (MDOT SHA ROW), and the Gibson Grove Church parcel. The project is located within sloped upland terrain adjacent to I-495.

The Morningstar Cemetery documentation was conducted within the limits of the archaeology survey area, as depicted on mapping provided by the MDOT SHA. The project consisted of historic and archival research, recordation of cemetery features, and mapping, together with archaeological monitoring of invasive bamboo removal. Archaeological monitoring of vegetation removal included documenting specific activity on the cemetery site, and directing work crews to prevent impacts to the cemetery. This effort was entirely noninvasive to avoid ground disturbance to the maximum extent practicable.

The Morningstar Cemetery is an African American benevolent society cemetery and the site of a no-longer-extant lodge building in Cabin John, Maryland. A total of 109 ranked features were recorded within the Morningstar Cemetery. These include 72 features that represent 66 burials and 37 additional cemetery features that cannot be confidently associated with burials but are likely burial related. Features are defined as any depression, burial marker, stone, or other object within the archaeology survey area that may be associated with burials. Overall, burials appear to be oriented in rows along a north/south axis, with the individual interments facing east. Ten grave markers include inscriptions, eight of which contain dates. Grave depressions and unmarked fieldstone markers are the most common types of features documented.

clear depression is visible at the fence line between the cemetery parcel and the MDOT SHA ROW, and one depression (Feature 98, possibly representing a grave) lies just within the ROW. In addition to the cemetery, the foundation of Moses Hall was documented in the north-central area of the parcel, along with scattered architectural and domestic debris likely associated with the use and destruction of the Hall.

Following the initial cemetery documentation, a geophysical survey was conducted using ground-penetrating radar (GPR) within 0.59 acre (0.24 ha) of the Morningstar Cemetery and 0.058 acre (0.024 ha) of the Gibson Grove Church parcel. The results indicate the location of 189 probable burials, and suggest a further 189 possible burials, the majority of which are seen to be arranged in rows. This total of 378 is likely lower than the actual total number of graves present due to areas that were inaccessible during the survey. The survey revealed that subsurface anomalies interpreted as graves continue into the MDOT SHA ROW. A total of 14 probable unmarked burials are indicated in this area, and as many as 34 burials are suggested in total; however, most of the anomalies likely have alternative, natural explanations. The survey within the Gibson Grove Church also clearly indicates the location of one probable unmarked

burial [REDACTED], and two possible burials in the same general area. One possible and one tentative burial are also suggested to the [REDACTED] of the church.

It is recommended that the project design be modified to avoid impacts to this portion of the ROW and the Morningstar Cemetery parcel. Based on the possibility of burials within or adjacent to the ROW, and depending on project plans impacting the ROW, additional archaeological investigations are recommended for the ROW portion of the archaeology survey area. If complete avoidance is not possible, it is recommended that appropriate mitigation options be developed in the project programmatic agreement, to be determined by consultation among MDOT SHA, FHWA, and consulting parties.

TABLE OF CONTENTS








Abstract	i
Table of Contents	iii
List of Figures	v
List of Tables	vii
1.0 INTRODUCTION	1
2.0 ARCHAEOLOGY SURVEY AREA AND ENVIRONMENTAL BACKGROUND ...	11
2.1 Archaeology Survey Area Description.....	11
2.2 Environmental Context.....	19
2.2.1 Soils	19
2.2.2 Climate	20
3.0 RESEARCH DESIGN AND METHODS.....	22
3.1 Historic Research Methodology	22
3.2 Cemetery Documentation Methodology	22
3.3 Archaeological Monitoring Methodology	23
3.4 Cemetery Mapping Methodology	23
3.5 Geophysical Survey Methodology	24
3.5.1 Limitations of GPR.....	24
4.0 PROJECT RESULTS.....	33
4.1 Regional Historical Background	33
4.1.1 European Contact and Settlement (1634 to ca. 1700)	33
4.1.2 Colonial Development and a New Nation (ca. 1700 to 1815)	33
4.1.3 Antebellum Period and the Civil War (1815 to 1870)	35
4.1.4 Reconstruction and Agricultural Diversification (1870 to 1930).....	36
4.1.5 The Modern Period (1930 to Present)	37
4.1.6 Historic Aerial Analysis of the Archaeology Survey Area Landform	37
4.2 Previously Identified Cultural Resources and Site-Specific History	40
4.2.1 Previous Surveys within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area	40
4.2.2 Previously Recorded Archaeological Sites within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area	46
4.2.3 Previously Recorded Architectural Resources within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area	46
4.3 Site-Specific History	47
4.3.1 Cabin John Area/Gibson Grove Community	49
4.3.2 Gibson Grove African Methodist Episcopal Zion Church	51
4.3.3 Moore's School/Cabin John School at Gibson Grove A.M.E. Zion Church	60
4.3.4 Morningstar Tabernacle No. 88 Moses Lodge	61
4.4 Documentation Results.....	75
4.4.1 Cemetery.....	75
4.4.2 Land Use.....	90
4.4.3 Moses Hall.....	90
4.5 Archaeological Monitoring and Modern Material Removal	95
4.6 Morningstar Cemetery Typology Discussion.....	95
4.7 Geophysical Survey Results.....	96

4.7.1	Gibson Grove Church.....	100
4.7.2	Morningstar Cemetery.....	100
5.0	SUMMARY AND RECOMMENDATIONS.....	110
5.1	Recommendations	111

References

Appendix A – Qualifications of the Investigators
 Appendix B – Property Chain of Title
 Appendix C – Morningstar Burial List (Provided by L. Paige Whitley)
 Appendix D – Cemetery Feature Data List
 Appendix E – Grave Condition Forms and Photographs
 Appendix F – Material Removed from the Cemetery during Clearing Activities
 Appendix G – Morningstar Tabernacle No. 88 Moses Hall and Cemetery and Gibson
 Grove A.M.E. Zion Church Report on Geophysical Surveys

LIST OF FIGURES

	
Figure 4. Physiographic Map of Maryland	9
Figure 5. Location of Archaeology Survey Area in Maryland Archeological Research Unit 12.....	10
Figure 6. Overview of the west end of the archaeology survey area from the southwest corner, facing northeast.....	12
	
Figure 9. Overview of the center of the archaeology survey area from the southern fenceline, showing the bamboo stand prior to its removal, facing northwest	13
	
Figure 11. Overview of the eastern edge of the archaeology survey area, showing the slope and bamboo stand in the background, facing north.....	14
	
Figure 13. View of an access path from Seven Locks Road. Note the railroad tie steps constructed by the Boy Scouts, as noted in Donaghue 2008, and the bamboo stand in the background, facing west	15
Figure 14. Exposed foundation of Moses Hall surrounded by bamboo, facing southeast.....	16
	
Figure 16. Trail leading to Seven Locks Road, facing east	17
Figure 17. Corridor in the bamboo stand in the northwest corner of the archaeology survey area, showing thick bamboo and the obscured ground surface, facing southeast	17
Figure 18. View of the east end of the MDOT SHA ROW, showing thick bamboo and the damage from an automobile accident, facing east	18
	
Figure 21. Overview of the bamboo standing in the northern section of the archaeology survey area, facing northwest	26
Figure 22. View of crewmembers cutting the bamboo along the fence in the east end of the archaeology survey area, facing northeast.....	26
	
Figure 24. View of the Moses Hall foundation, with cut bamboo laid down in the background, facing southwest.....	27

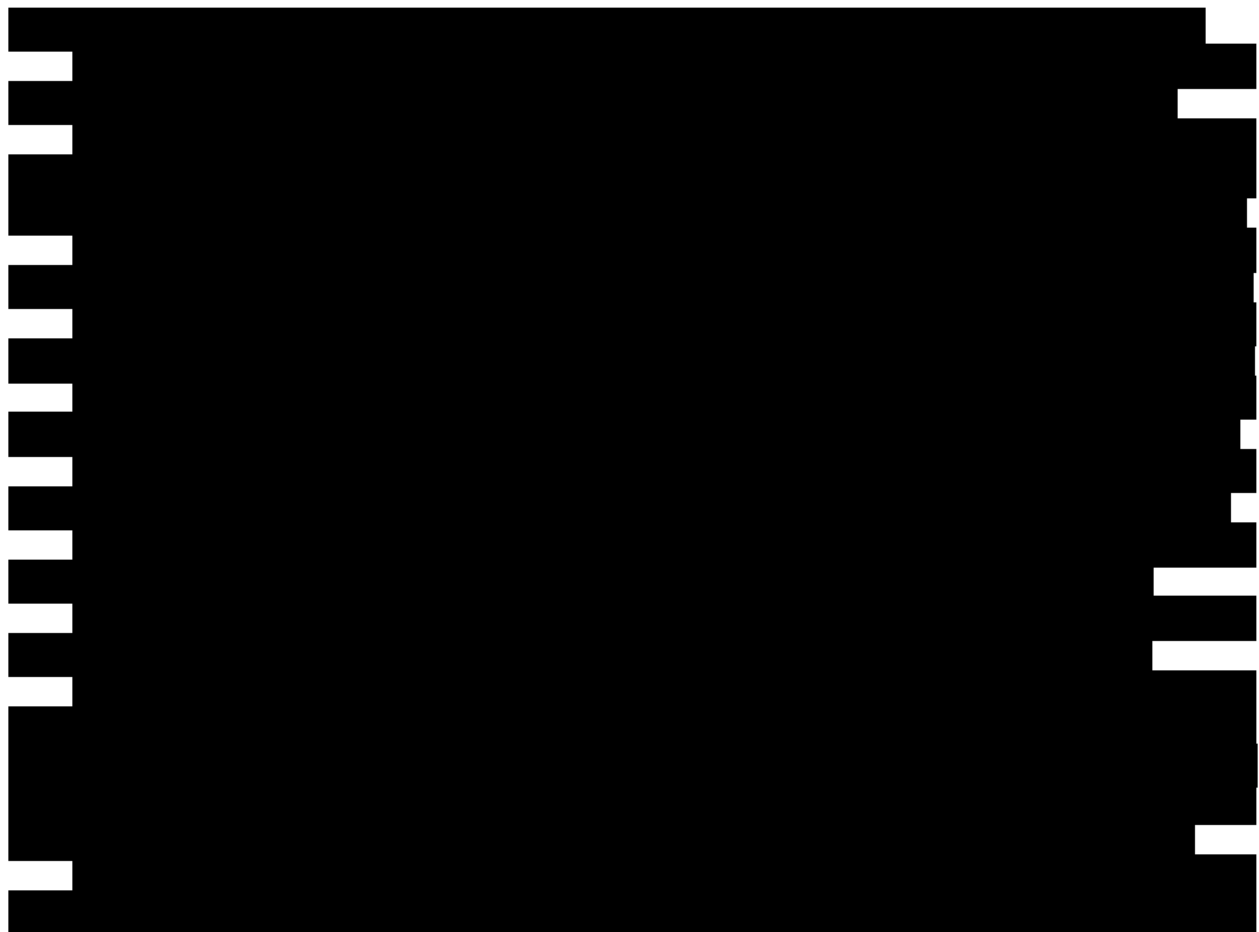


Figure 39. Historic Photograph of Sarah Gibson.....	48
Figure 40. Excerpt from <i>The National Republican</i> Published on May 26, 1886.....	52

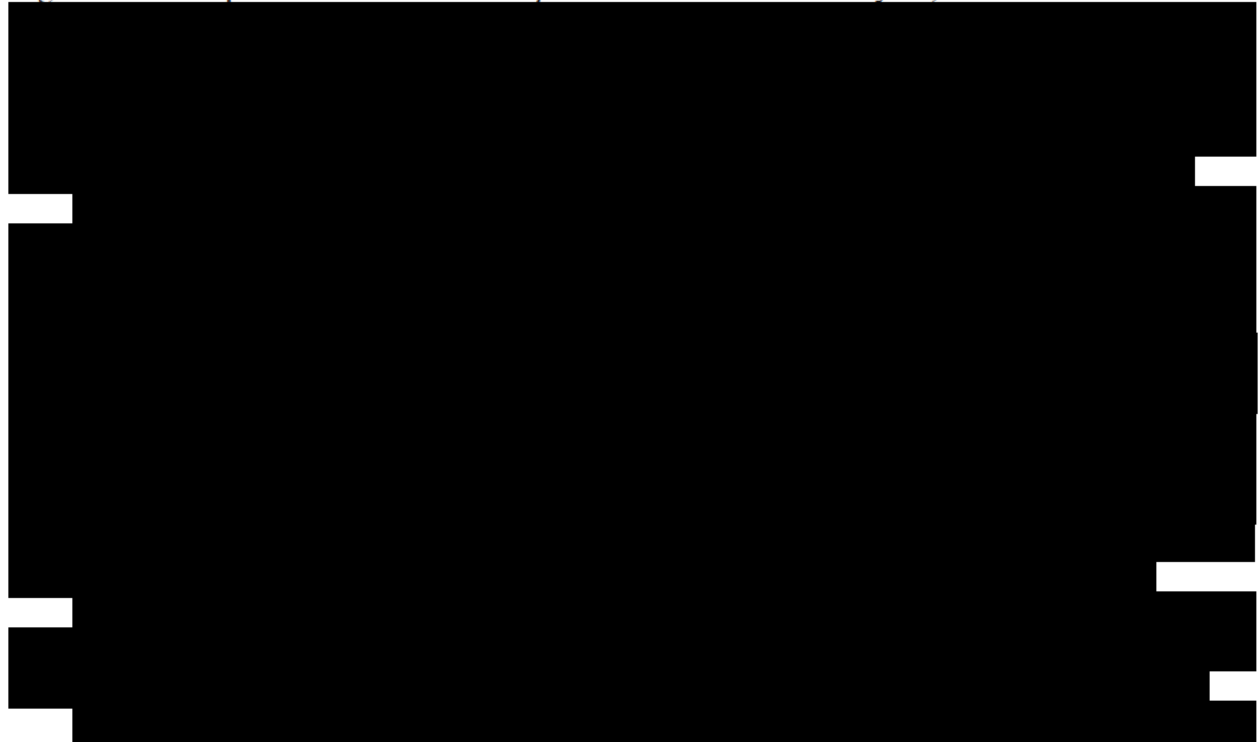


Figure 55. Metal bail-type burial container handle recovered from ground surface in Morningstar Cemetery (Front).....	89
Figure 56. Metal bail-type burial container handle recovered from ground surface in Morningstar Cemetery (Back).....	89
Figure 57. 1961 Photograph of the Moses Lodge, from MDOT SHA Right-of-Way, File No. 48288, Peter and Dorcas Jones Property.....	91
Figure 58. View of a Moses Hall roof portion lying north of the foundation, facing south.....	93
Figure 59. Close-up of a roof section, showing asphalt shingles.....	93
Figure 60. Scattered objects related to the Moses Hall structure, looking northwest.....	94

Figure 63. View of the steep slope south of the Gibson Grove Church toward I-495 (the roadway is out of sight to the left), facing west.....	101
--	-----

LIST OF TABLES

Table 1. Historic Names Referenced of the Organization, Local Chapter, Meeting Building, and Burial Grounds within Historical Documents.....	11
Table 2. Soils Present within the Archaeology Survey Area.....	19

Table 3. Feature Rank Criteria.....	23
Table 4. Previous Cultural Resources Surveys within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.....	40
Table 5. Previously Recorded Archaeological Resources within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.	46
Table 6. Architectural Properties within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.....	46
Table 7. Inscribed Gravestones Identified at the Morningstar Cemetery.	77
Table 8. Feature Rank Criteria and Total Features.	80
Table 9. Burial List with Components and Description.	82
Table 10. Confirmed Burials by Decade.....	86

1.0 INTRODUCTION

The Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212; hereafter, Morningstar Cemetery) investigation is part of Project No. AW073D12, the I-495 & I-270 Managed Lanes Study. Morningstar Cemetery is an African American benevolent society cemetery and no-longer-extant lodge building in Cabin John, Maryland. The cultural resources investigation involved background research, detailed mapping of topographic and cultural features, documentation of features through photographic recordation, recordation of tombstone inscriptions, recordation of feature attributes at the Morningstar Cemetery, and archaeological monitoring of vegetation removal.

Invasive bamboo vegetation, which covered the majority of the northern edge of the cemetery parcel and extended into the Maryland Department of Transportation State Highway Administration (MDOT SHA) Right-of-Way (ROW), was cut and removed in order to complete documentation work over the entire parcel. A.D. Marble completed the archaeological monitoring of the vegetation removal and documentation of the gravesites. Modern trash uncovered during the removal of the bamboo was identified and removed in coordination with the community and MDOT SHA. Dovetail Cultural Resource Group (Dovetail) created a detailed map of the cemetery showing features identified during archaeological monitoring and documentation (Figures 3A to 3C).

The goal of the project was to document and map burials or other related features within the archaeology survey area using noninvasive methods. The archaeology survey area consists of the Morningstar Cemetery parcel and the adjacent area of the MDOT SHA ROW. The ROW varies from approximately 20 feet to approximately 60 feet in width between the fence line and the edge of the asphalt roadway of I-495. The archaeology survey area is within the Upland Section of the Piedmont Plateau Physiographic Province in Cabin John, Montgomery County, Maryland; in Maryland Archeological Research Unit 12, the Potomac Drainage (Figures 4 and 5).

Geophysical surveys conducted by Horsley Archaeological Prospection, LLC (HAP) were completed on the Morningstar Cemetery and Gibson Grove Church parcel in July 2021 following the cemetery documentation. The goal of the surveys was to detect and map marked and unmarked graves at both locations, including areas within the MDOT SHA ROW. A smaller area of around 0.058 acre (0.024 ha) was investigated at the Gibson Grove Church during the survey. A full discussion of the geophysical survey is included within Section 4.7, and the full report on the survey is included as Appendix G of this report.

Project background research, field work, and reporting conformed to the *Standards and Guidelines for Archaeological Investigations in Maryland* (Shaffer and Cole 1994) and the MDOT SHA (2017) *Archaeology Guidelines for Consultants*. 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).

The cultural resources staff at A.D. Marble performed the documentation and monitoring of the archaeology survey area in March 2020, and in January through March 2021. Jennifer Falchetta

served as the primary monitor and field director, with assistance from Amadeusz Zajac and Richard White. Frank Mikolic served as principal investigator and project manager. Patricia Slovinac and Russell Stevenson assisted with background research. Dovetail archaeologist Joseph Blondino completed the mapping, and Katherine McCarthy Watts assisted with the historic research. Jennifer Falchetta, Patricia Slovinac, and Katherine McCarthy Watts served as the primary report authors, with contributions by Frank Mikolic.

Following this Introduction, the report presents five sections of text: Archaeology Survey Area and Environmental Background, Research Design and Methods, Project Results, and Summary and Recommendations. References cited are followed by appendices, which present the qualifications of the investigators (Appendix A), the property chain-of-title for the Morningstar Tabernacle and Gibson Grove African Methodist Episcopal (A.M.E.) Zion Church (Appendix B), the most updated Morningstar burial list provided by L. Paige Whitley (Appendix C), the cemetery feature data list (Appendix D), the grave condition forms and feature photographs (Appendix E), a list of modern material removed from the cemetery during clearing activities and a photograph location map (Appendix F), and the geophysical survey report conducted for the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212) and the Gibson Grove A.M.E. Zion Church by HAP (Appendix G).

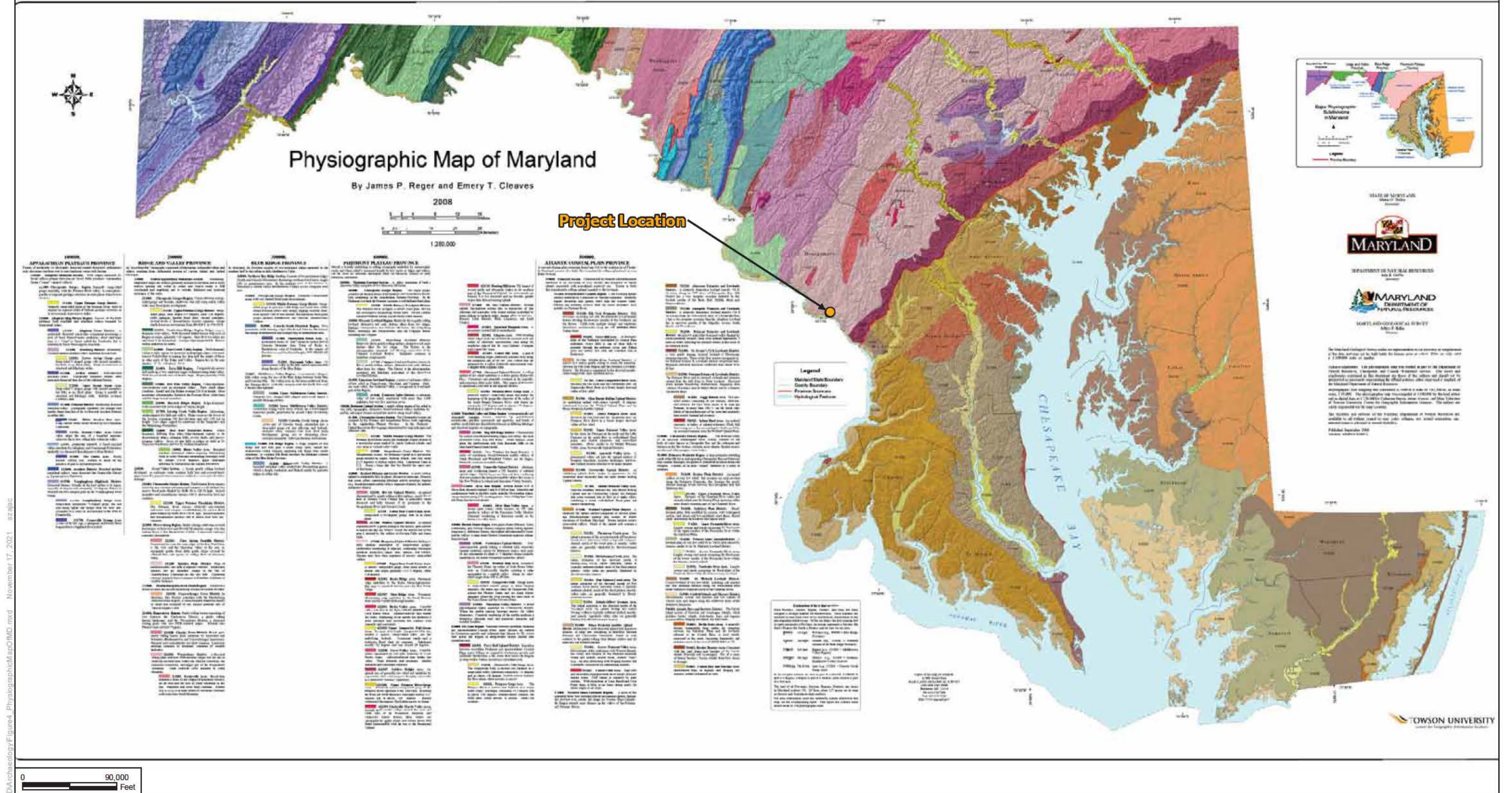
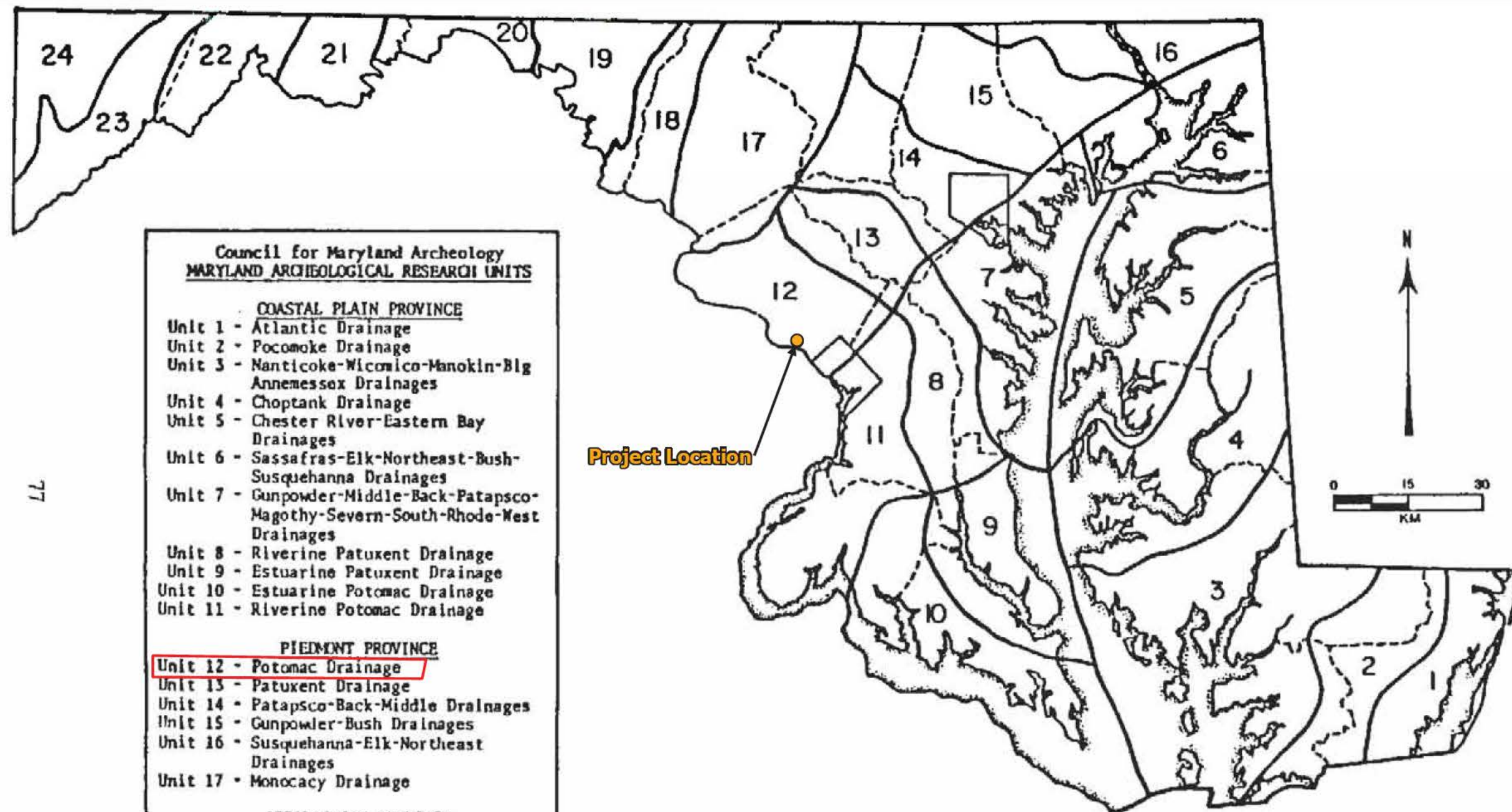


Figure 4: Physiographic Map of Maryland
Documentation of the Morningstar Tabernacle No. 88
Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study and
Remote Sensing of the Morningstar Cemetery and the Gibson Grove A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland



Maryland Archeological Research Units.

One should consult U.S. Geological Survey quadrangles to determine river drainages when project areas lie near the borders of Research Units.

Figure 5: Location of Archaeology Survey Area in Maryland Archeological Research Unit 12

Documentation of the Morningstar Tabernacle No. 88
Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study and
Remote Sensing of the Morningstar Cemetery and the Gibson Grove A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland

● Project Location

2.0 ARCHAEOLOGY SURVEY AREA AND ENVIRONMENTAL BACKGROUND

2.1 Archaeology Survey Area Description

At the time of the initial survey, the southern two-thirds of the archaeology survey area were clear of brush, with mature trees throughout, including the main portion of the cemetery containing burials. The remainder of the archaeology survey area was covered by a thick bamboo grove covering [REDACTED] portion of the cemetery parcel, within MDOT SHA ROW along I-495, and around the ruins of the Moses Hall structure. Moses Hall was the home of Morningstar Tabernacle No. 88, the local chapter of a benevolent society known as the Ancient United Order of the Sons and Daughters, Brothers and Sisters of Moses. The organization, local chapter, meeting building, and cemetery have been referred to by various names within various historic documents over the years. Table 1 below has been added in an effort to provide clarity to this issue. The local chapter will be referred to as the Lodge, the meeting building will be referred to as Moses Hall (or hall), and the cemetery as Morningstar Cemetery (or cemetery) within this report. The official name for the resource documented during the survey is the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212) and includes both the hall and cemetery.

Table 1. Historic Names Referenced of the Organization, Local Chapter, Meeting Building, and Burial Grounds within Historical Documents.

Organization	Ancient United (sometimes Grand) Order of the Sons and Daughters, Brothers and Sisters of Moses (sometimes also seen as "... the Brothers and Sisters, Sons and Daughters of Moses," or simply called the Moses Order).
Local Chapter	Morningstar Tabernacle No. 88, herein referred to as the Lodge
Meeting Building	Moses Hall (sometimes referred to as Moses Lodge or the Lodge building)
Burial Grounds	Morningstar Cemetery, Morningstar Tabernacle Cemetery, Moses Cemetery

The archaeology survey area slopes toward the south/southeast (Figures 6 to 11). When the site was first visited, the entire northern end of the archaeology survey area, including the MDOT SHA ROW, was covered with thick bamboo growth. Large piles of bamboo and other vegetation had been cut and moved by the local community and piled in some areas of the parcel, obscuring features on the surface. The ground surface throughout most of the cemetery was covered with fallen leaves and vegetation, although surface visibility remained generally high. Portions of the stone and concrete block foundation remains of Moses Hall were visible within the bamboo stand.

[REDACTED] The footpath provides an entrance to the cemetery along a panhandle-shaped portion of the parcel. The footpath formerly constituted an unimproved road that led past the north end of the hall to a farmstead that was demolished by the construction of I-495. The present footpath has been extended to the south of the Moses Hall foundation, following the top of a gully before turning toward the east [REDACTED]. The portion of the path along the gully is constructed on top of fill piles on which wooden steps have been constructed (Figures 12 through 19). After the bamboo removal was completed, a layer of bamboo leaves and branches remained on the surface within the northern portions of the archaeology survey area.



Figure 6: Overview of the west end of the archaeology survey area from the southwest corner, facing northeast (March 2020).





Figure 9: Overview of the center of the archaeology survey area from the southern fence-line, showing the bamboo stand prior to its removal, facing northwest (March 2020).



Figure 11: Overview of the eastern edge of the archaeology survey area, showing the slope and bamboo stand in the background, facing north (March 2020).



Figure 13: View of an access path from Seven Locks Road. Note the railroad tie steps constructed by an Eagle Scout Project, as noted in Donaghue 2008, and the bamboo stand in the background, facing west (March 2020).



Figure 14: Exposed foundation of Moses Hall surrounded by bamboo, facing southeast (March 2020).





Figure 16: Trail leading to Seven Locks Road, facing east (January 2021).



Figure 17: Corridor in the bamboo stand in the northwest corner of the archaeology survey area, showing thick bamboo and the obscured ground surface, facing southeast (January 2021).



Figure 18: View of the east end of the MDOT SHA ROW, showing thick bamboo and the damage from an automobile accident, facing east (January 2021).



2.2 Environmental Context

2.2.1 Soils

The project is located within the Upland Section of the Piedmont Plateau Physiographic Province in Cabin John, Montgomery County, Maryland. The surrounding area is characterized by rolling to hilly uplands interrupted by steep-walled ravines. Two soil associations are mapped within the archaeology survey area: Glenelg silt loam, 8 to 15 percent slopes (2C); and Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes (16D; Table 2; Figure 20). The presence of both of these soil types in the area shows that the area has moderate susceptibility to erosion (Havlik 2020:3). Ravines, therefore, tend to naturally form in such soils, especially after removal of forest cover when the land was first cleared for agriculture following initial settlement by colonists from Europe (United States Department of Agriculture, Natural Resource Conservation Service [USDA-NRCS] 2021a, 2021b).

An MDOT SHA drainage evaluation (Havlik 2020) concluded that all ditches in the vicinity of the MDOT SHA ROW and the subject property were stable. Minor sloughing was observed within the cemetery property along the slope, as noted by the adjacent property owner. This minor sloughing is not within the MDOT SHA ROW, and there was no observed discharge from the MDOT SHA property that would cause or worsen the conditions in this area. A review of the U.S. Geological Survey (USGS) k factor for soils in the area shows that the area has moderate susceptibility to erosion that could contribute to the sloughing observed.

Glenelg silt loams are well-drained soils that are found on hillslopes. The parent material for Glenelg silt loams is residuum weathered from mica schist. Brinklow-Blocktown channery silt loams are well-drained soils found on knolls. Parent material for Brinklow-Blocktown soils is gravelly residuum weathered from low base phyllites and schists. Natural quartz clasts are present weathering out of the topsoil throughout the archaeology survey area where the surface has been cleared (USDA-NRCS 2021a, 2021b). Bedrock is noted within areas of Brinklow-Blocktown channery silt loam at a range between 20 to 40 inches below ground surface (bgs), while the depth to bedrock within areas of Glenelg silt loam is noted at 80 inches or more bgs (Brown and Dyer 1995).

Table 2. Soils Present within the Archaeology Survey Area.

Soil Type	Topographic Setting	Drainage Class	Erosion Hazard Class	Portion of the Archaeology Survey Area
Glenelg silt loam, 8 to 15 percent slopes (2C)	Hillslopes	Well drained	Severe	Southern and northern areas
Brinklow-Blocktown channery silt loams, 15 to 25 percent slopes (16D)	Knolls	Well drained	Severe	Northwest, northeast, and southeast corners

Source: USDA-NRCS 2021a

2.2.2 *Climate*

The current climate of the archaeology survey area is relatively mild, with 46.93 inches of precipitation per year. Summer high temperatures are in the mid- to high 80s, with winter lows in the mid- to high 20s (U.S. Climate Data 2021).

3.0 RESEARCH DESIGN AND METHODS

3.1 Historic Research Methodology

Prior to conducting field work, historical and background research was completed on the Cabin John vicinity, the Gibson Grove A.M.E. Zion Church, the Morningstar Tabernacle No. 88, and the African American community that developed [REDACTED]

[REDACTED] Section 4.3 provides specific information obtained regarding the Cabin John vicinity, the Gibson Grove A.M.E. Zion Church, and the Morningstar Tabernacle No. 88 (Lodge and cemetery) as individual related resources; the history of the African American community in general is included within all narratives. Secondary sources that were consulted include the significant work compiled by researcher L. Paige Whitley, who generously provided the results of her work.

3.2 Cemetery Documentation Methodology

A.D. Marble conducted field documentation of the Morningstar Cemetery between March 23 and 25, 2020, and on March 23, 2021. An initial pedestrian survey of the cemetery resulted in the identification of numerous surface features, including burial markers, depressions, fieldstones, and environmental features. Features, in this case, are any objects that may be related to the cemetery operations, burials, or other evidence of human activities at the site during its historic use. Any object that was determined to possibly be related to burials was assigned a feature number and documented. Other “features,” such as the remnants of the Moses Hall building, including the foundation and a roof fragment, were not documented as potential burial features. Features were mostly mapped and documented individually, though they may not each represent a burial; two or more features may represent different parts of a single burial, or a feature may be determined to not represent a burial after analysis. After mapping and documentation, and with more familiarity with the overall site, some features can be grouped together as a unit. Since naturally occurring local stone may be used as burial markers, some items may be natural materials, but the placement of those objects would determine if they are burial-related features. Features were marked with unique numbers and documented using a digital grave condition form; researchers recorded as much information as possible for each feature. Photographs were taken for each feature, or in some cases, groups of features as appropriate.

Appendix D contains a spreadsheet of all features identified within the cemetery parcel, and Appendix E contains the feature documentation forms and photographs for each feature.

Features were ranked in a hierarchy to determine the likelihood that they represent burials. The ranking from one to four was based on specific criteria for each level (Table 3). Level one represents the highest level of certainty that the feature is a likely burial. Level two includes features that are probable burials; these are features that are lacking the definitiveness of a grave depression or multiple other criteria. Level three, which are possible burials; are varied features that include at least one of the listed criteria. Lastly, level four includes features that cannot be determined to represent burials but are likely to be associated with the cemetery and Moses Hall. It should be noted that many features that cannot be definitely identified as burials based on their morphology alone may represent grave features in all likelihood. At the west end of the cemetery, in particular, graves occur in well-ordered rows characterized by distinct elongated depressions.

There is a possibility that graves are present in the areas between the recorded depressions; however, it is not possible to definitely state that there are burials present in those intervening locations based on the morphology of the recorded features alone. Artifacts and structural material on the surface throughout the parcel was not included in the feature documentation or tier system. A discussion of features and tier ranking can be found in Section 4.4.1.

Table 3. Feature Rank Criteria.

Rank	Category	Criteria
1	Likely Burial	Either a grave shaft-shaped depression is present OR it has all of the following three characteristics: a tabular marker, firmly embedded in the ground; the marker is oriented with the larger, smooth side(s) facing east/west; the marker lines up with other burials in the row.
2	Probable Burial	Feature has at least two of the characteristics listed above.
3	Possible Burial	Feature has one of the characteristics listed above.
4	Cannot be determined	Feature does not meet any characteristics listed above.

3.3 Archaeological Monitoring Methodology

Archaeological monitoring of bamboo cutting and removal activities occurred between January 13 to 21, 2021; and March 4 to 25, 2021. An archaeological monitor was present on-site during all clearing activities within the archaeology survey area. The monitor documented specific activity on the site; photographed examples of work before, during, and after it was completed; and directed work crews to prevent impacts to the cemetery. Leaves and debris were raked into piles to expose some of the surface in the northwestern corner of the archaeology survey area to ascertain whether grave depressions were present. Additional work by the clearing crews included the removal of several dead and dangerous trees within the cemetery near the ROW and the reconstruction of the ROW fence. A similar process of pedestrian survey and flagging of features was performed during archaeological monitoring of the bamboo removal so that features could be documented, photographed, and mapped (Figures 21 through 34). Material present on the surface of the cemetery included modern debris that was not related to the cemetery; however, this modern material was also documented and photographed, and was removed (Appendix F).

3.4 Cemetery Mapping Methodology

Dovetail conducted a survey of the cemetery between March 30 and April 2, 2020; on March 23, 2021; and on May 6, 2021, using a Total Station and Data Collector. The mapping of the cemetery provided in Figures 3A to 3C was created using ArcGIS to depict:

- All grave-related features, including gravestones, field stones, grave markers, and depressions;
- Notable surface artifacts;

- Topographic contours and other terrain features, such as the [REDACTED] gulley; and
- Additional relevant features, including those related to drainage, the limits of the bamboo, roads, driveways, planting areas, residences, and fences.

3.5 Geophysical Survey Methodology

Geophysical survey was conducted by HAP using a regular grid and differential global positioning system (DGPS) depending on the feasibility of each approach in different areas of the survey area. DGPS is more effective in areas where there is little tree canopy cover, allowing for the system to gain adequate satellite coverage for accurate GPS recording. Ground-penetrating radar (GPR) data were collected and recorded onto a dedicated data recorder and downloaded for data processing. Data processing was achieved using GPR-SLICE v7.0.

The GPR survey at Morningstar Cemetery was completed using a GSSI UtilityScan GPR system with a digital 350 MHz antenna. Data were collected in parallel transects spaced 0.25 meter (0.8 ft) apart within all survey areas. An arbitrary grid was established based on the northwest corner within the fence line. A north-south baseline was established to extend a survey grid over the areas able to be surveyed. The MDOT SHA ROW area was surveyed using DGPS to obtain accurate location information during the survey.

Data were collected during the survey at Gibson Grove Church using a GSSI SIR-3000 GPR system with 200 MHz antenna, while additional transects were surveyed using the GSSI UtilityScan and 350 MHz antenna. An arbitrary grid was established from the northeast corner of the church structure; an east-west baseline was extended from there to encompass areas north and west of the structure. See Section 4.7 below and the full geophysical survey report attached as Appendix G for more details regarding the surveys.

3.5.1 Limitations of GPR

It is important to consider the limitations of GPR for the detection of cultural resources. Anomalies detected using GPR survey represent potential subsurface features that must be confirmed using subsurface excavation methods. Several factors, including weak contrasts between features and the surrounding soils, the nature and condition of the ground surface, GPR antenna frequency, electrical conductivity of the ground, distance between transects, and soil types and rock content may impact the outcome of the GPR survey and the interpretations that can be made upon analysis of the data. GPR relies on distinctive, measurable contrasts in electrical conductivity between the buried remains and natural soils surrounding them (Horsley 2021). If the contrast is small, the reflection will be weak, resulting in possible missed or misinterpreted anomalies.

The condition of the ground surface can affect the quality of data and the depth of penetration of the radar. Surface features, such as concrete, gravel, trees, bushes, landscaping, debris, etc., can limit the connection between the antenna and the ground, and also the area able to be surveyed, resulting in gaps in the data. Collecting more data in an area enables a more complete interpretation of anomalies. Antenna frequency determines the horizontal and vertical spatial resolution and

exploration depth. To fully explore to a depth required to recognize burial features, some loss of horizontal and vertical spatial resolution is expected. The maximum depth of exploration is also dictated by the electrical conductivity of the ground; wetter, more clay-rich soils can reduce GPR penetration. The distance between transects is determined by the operator, and is based on the size of the targets; for best results, transects should run perpendicular to the orientation of the target. As discussed in Section 2.2.1, the channery soils and shallow bedrock of the Brinklow-Blocktown channery silt loam may have an impact on the quality of data from the GPR survey. The result is that GPR anomalies show potential disturbances below the ground surface, but the results are not conclusive. The anomalies may represent natural disturbances within the soil, such as tree roots, rocks, or different soil types; man-made disturbances, which are not the target, may be detected, such as modern utility trenches or landscaping excavations. The interpretation of detected anomalies depends on the quality of the data collected, the experience and skill of the GPR operator and analyst, and the type of anomaly that is detected and interpreted. Though interpretations can be made with a high level of confidence, they can only be confirmed through subsurface investigations.



Figure 21: Overview of the bamboo standing in northern section of the archaeology survey area, facing northwest (January 2021).



Figure 22: View of crewmembers cutting the bamboo along the fence in the east end of the archaeology survey area, facing northeast (January 2021).



Figure 24: View of the Moses Hall foundation, with cut bamboo laid down in the back-ground, facing southwest (January 2021).

4.0 PROJECT RESULTS

4.1 Regional Historical Background

4.1.1 *European Contact and Settlement (1634 to ca. 1700)*

Sir George Calvert, Lord Baltimore, was initially granted the charter for Maryland, but he died prior to its execution. Instead, his eldest son, Cecilius (“Cecil”) Calvert, received the patent on June 20, 1682 (Works Progress Administration [WPA] 2014:50). When Cecil’s brother, Leonard, arrived with approximately 200 European colonists in 1634, the Potomac River fall line was “a dynamic cultural boundary” (Potter 1993:154). Non-violent social interaction resulted in the exchange of various goods by peoples residing upstream and downstream from the falls of the river (Potter 1993:158–161). During the first few decades of the seventeenth century, the Piscataway was the primary Native American tribe in the region (WPA 2014:42).

The earliest European settlers to the southern part of the colony came from England, Ireland, and Wales via the Chesapeake Bay region, with Germans moving south from Pennsylvania into the western part of the colony (Wall 2012:21). The first land patent in the area that would become Montgomery County was a tract along Rock Creek granted in 1688 (Montgomery County, Maryland [MCM], and Montgomery County Historical Society [MCHS] 1999:3). In 1696, the area that would eventually comprise modern-day Montgomery, Prince George’s, and Frederick counties, as well as the District of Columbia, was established as Prince George’s County; it also included portions of today’s Calvert and Charles counties, in addition to undesignated land in the northwestern part of the colony (Diamanti et al. 2008:27; MCM and MCHS 1999:3).

During this period of European settlement, the institution of slavery was relatively marginal in Maryland, as indentured English and Irish servants outnumbered enslaved Africans into the 1690s. Most of the persons of color in the colony at this time came from the Caribbean Islands, or elsewhere in the “New World;” several worked as indentured servants or had gained their freedom, either through the courts or by purchasing it, and accumulated their own property (Maryland State Archives [MSA] 2020:3).

4.1.2 *Colonial Development and a New Nation (ca. 1700 to 1815)*

Maryland underwent an extensive transformation toward the end of the seventeenth century, as the large-scale planters revolted against Calvert family rule, took control of the colony by consolidating their political power, and expanded their landholdings. Tobacco dominated agricultural production throughout the Chesapeake Bay region and the southern parts of Prince George’s County, as the plantation system became firmly entrenched. This, coupled with political developments in Europe that disrupted the supply of indentured servants, prompted Maryland planters to increase their use of enslaved Africans, a change facilitated by the end of the English Royal African Company’s monopoly of the Atlantic slave trade in 1698. This resulted in large numbers of Africans, mostly male, being forced into slavery (Diamanti et al. 2008:28; MCM and MCHS 1999:3; MSA 2020:4).

By the early eighteenth century, soil exhaustion from tobacco production was profoundly impacting the Chesapeake Bay region, and farmers began to abandon their fields and move west in search of new land. The area that would become Montgomery County received a large influx of persons. As a result, Frederick County was established in 1748 from the western section of Prince George's County; it included all of the land in today's Frederick, Montgomery, Washington, Allegany, and Garrett counties (Diamanti et al. 2008:28; My Counties 2021). As the new arrivals established and worked their plantations, the population of enslaved Africans within the region increased. By the middle of the century, planters throughout the state began to see an advantage in having an indigenous labor force, and they began to import African women who would establish families with the men. In 1774, Maryland officially ended its participation in the international slave trade, instead building a reliance on the domestic slave trade (MSA 2020:6).

The colonists began to dispute British rule in Maryland following the passage of the Stamp Act in 1765. In June 1774, a meeting of the freemen of the lower part of Frederick County was called at the Hungerford Tavern in Rockville. The meeting concluded with the publication of the Hungerford Resolves, in which support for the city of Boston was declared, and a boycott of all English imports was ordered (Boyd 1879:51). In September and October 1774, the Continental Congress assembled in Philadelphia and adopted a plan for a non-importation, non-consumption, and non-exportation protest against the actions of Great Britain in Boston. After the bloodshed at Lexington and Bunker Hill, the Continental Congress ordered the creation of a Continental Army, with George Washington as commander-in-chief. Although no battles of the Revolution were fought on Maryland soil, armies from both sides marched through its land. The state also supplied many soldiers and goods to the cause. Roughly 5,000 enslaved persons in the Chesapeake region escaped to the British with the promise of freedom, many of whom enlisted in their forces; by 1780, the Continental Army began to accept free and enslaved persons of color, the latter only with their owner's permission (Boyd 1879:56-59; MSA 2020:8; Scharf 1882).

A bill to create Montgomery County had been passed on September 6, 1776, which divided Frederick County into three counties: Frederick (center), Montgomery (southeast), and Washington (west; Boyd 1879:56-59). Following the American Revolution, Montgomery County continued to develop through the construction of roadways, schools, and an attempt to make the upper Potomac navigable (Boyd 1879:69, 75-79). However, soil exhaustion from continued tobacco cultivation caused many planters to leave the county. The population dropped from 18,003 inhabitants (11,679 white, 294 free persons of color, 6,030 slaves) in 1790 to 15,058 total inhabitants (8,508 white, 262 free persons of color, 6,288 slaves) in 1800; however, the population rose again over the next decade, with the census recording 17,980 total inhabitants (9,731 white, 677 free persons of color, 7,572 slaves) in 1810. These numbers indicate that although the population of white persons fluctuated during this period, there was a growing reliance on enslaved labor despite a brief antislavery movement following the war (Boyd 1879:107; MSA n.d., 2020:9; United States Census Bureau [U.S. Census] 1790b:47, 1800b:50).

The War of 1812 began in June of that year, and had little impact on Montgomery County for some time. In 1813, ten British ships entered the Chesapeake Bay and began a campaign to rob inhabitants and destroy property. The arrival of the British once again brought hopes of freedom to enslaved African Americans, as many seized the opportunity to seek protection from the British Army; as with the Revolution, many persons of color, both free and enslaved, volunteered to serve as guides for the British army (MSA 2020:11). In August 1814, another British fleet arrived with

3,000 soldiers with a plan to capture Washington, D.C. British forces burned the capital and sent officials fleeing into neighboring towns on their way to attempt to capture Baltimore. Baltimore was better prepared to face the assault, and was not taken (Farquhar 1952). During the attack on Washington, President James Madison, along with the Attorney General and other staff, fled to Brookeville and sheltered at the house of Caleb Bentley, the postmaster (Gambrill 1917). Madison waited for two days for news of the state of the capital, and left for Washington as soon as word was received that the British were retreating.

4.1.3 Antebellum Period and the Civil War (1815 to 1870)

Construction of both the Baltimore and Ohio (B&O) Railroad and the Chesapeake and Ohio (C&O) Canal began in 1828 (the railroad from Baltimore, and the canal from Georgetown), to facilitate the trade of goods and raw materials between the interior and the eastern seaboard (Reed 1980:6). Despite these developments, Montgomery County remained mostly rural during the antebellum period. Agriculture remained one of its principal industries, although tobacco cultivation began to gradually decline in favor of agricultural diversification. In response, the use of enslaved labor also gradually declined in Montgomery County (40 percent of the county's population was enslaved in 1800, compared to 30 percent in 1860), although the practice would continue until the state ratified a new constitution banning slavery in November 1864 (Abraham Lincoln's Emancipation Proclamation of January 1863 did not apply to Maryland). Encouraged by developments in the north, where slavery had been abolished, many enslaved persons in Maryland and other southern states sought freedom through the Underground Railroad, or escaped to the north on their own; Frederick Douglass fled Baltimore on a train (Diamanti et al. 2008:29; MCM and MCHS 1999:5-7; MSA 2020:12-21; U.S. Census 1800b:50, 1860:214). During the early nineteenth century, Maryland developed vibrant free African American communities in areas such as Baltimore and Olney in Montgomery County.

The Civil War began on April 12, 1861, with the Confederate forces' attack on Fort Sumter. The status of Maryland as a border-state, the strategic position it held between the North and the capital in Washington, D.C., and the opposing viewpoints of its leaders and residents made it the focus of many parties during the early months of the war, whether it was Confederate President Jefferson Davis encouraging the state to secede, or military surveillance of the state legislature by President Abraham Lincoln's administration (Randall and Donald 1969:231-233). Montgomery County was important as the border between the rebelling southern states and Washington, D.C. Federal troops were stationed in Montgomery County to guard the banks of the Potomac, as well as the C&O Canal, an important transportation link. Maryland never seceded from the Union, and it attempted to stay neutral by banning federal troops from crossing the territory. However, many Marylanders sympathetic to the Southern cause traveled to Virginia and the Carolinas to volunteer for service (Onderdonk and McSherry 2009). Enslaved persons made use of Union troop movements and occupation of the state to escape from bondage. Examples include several individuals who snuck aboard a train carrying Union soldiers through Frederick, and individuals entering Union encampments where the soldiers enlisted them as military laborers or servants. Upon Congress's abolishment of slavery in the District of Columbia in 1862, enslaved persons flocked to the city, where they often found employment as army or navy laborers, or in military hospitals. On August 25, 1862, Lincoln's war department officially sanctioned the recruiting of African American soldiers, which was further encouraged with the issuance of the Emancipation Proclamation. It is estimated that 178,895 persons of color (including over 8,000 from Maryland) had enlisted in the

Union army prior to the end of the Civil War (MSA 2020:19-21; Randall and Donald 1969:391-393).

The first bloodshed of the Civil War occurred in Maryland when a Massachusetts regiment, marching through Baltimore from one train station to another on their way to defend the capital, was attacked in the streets by Confederate sympathizers. The Battle of Antietam, fought on September 17, 1862, near Sharpsburg, was one of the bloodiest of the conflict. As part of the Maryland Campaign to invade the North, the battle resulted in devastating casualties on both sides, with no true victor despite the fact that the Confederate push into the North was halted (Randall and Donald 1969:221-223). The Battle of Monocacy occurred outside of Frederick on July 9, 1864, as part of a Confederate attempt to raid Washington, D.C. While the battle resulted in the defeat of Union troops, the Confederate army was delayed for a day, allowing time for Union reinforcements to arrive at the capital ahead of a Confederate attack (Onderdonk and McSherry 2009; Randall and Donald 1969:435-436). In general, the residents of Montgomery County were subjected to constant disruption by the movements of the Union and Confederate armies, which sometimes included plundering of horses and food, or skirmishes between small detachments of soldiers (MCM and MCHS 1999:9-10).

4.1.4 Reconstruction and Agricultural Diversification (1870 to 1930)

Since Maryland never seceded from the Union, it was not subject to the reconstruction policies of the federal government following the Civil War. Despite that fact, however, dramatic changes occurred within the state, including Montgomery County, after the end of the Civil War and the emancipation of slaves. Smaller farms began to appear alongside larger plantations, some of which were owned by African American landholders; these farms were interspersed with small crossroads villages. African Americans began to establish their own communities, which often included churches, schools, benevolent societies, and social groups. Tobacco was still the predominant crop during this period, particularly in Prince George's County, but newer crops began to take a stronger hold in the agricultural landscape. By 1880, Montgomery County had become a major producer of corn and wheat. However, as railroads opened eastern markets to Midwestern agriculture, eastern farmers found it increasingly difficult to compete, and reoriented their farms to the cultivation of produce and dairy products (Diamanti et al. 2008:29-30; MSA 2020:23; Sween 1984). Local industry included the manufacture of farming equipment, blacksmithing, tanneries, and tin shops. In addition, taverns, blacksmith shops, and wheelwrights began to appear along major roadways.

Further expansion of transportation systems, and the resulting access to western markets, allowed land values to rise in Montgomery County. The Metropolitan Branch of the B&O Railroad, constructed through the county in 1873, connected Washington, D.C. with Frederick County. Along with the passage of the Civil Service Act of 1883, which created a stable job market for federal employees, this rail line allowed federal employees and workers to live outside the city, resulting in the creation of several residential communities along the line during the late nineteenth century. In addition, the existing road system that had suffered through years of neglect because of the Civil War was once again set as a high priority, and existing roadways were upgraded and maintained (Diamanti et al. 2008:29-30; Hiebert and McMaster 1976).

Despite emancipation, this period saw African Americans fighting for equal rights and the same opportunities as their white neighbors. In 1868, the 14th Amendment was passed, granting citizenship rights for all persons born or naturalized in the United States; and in 1870, the 15th Amendment was passed, granting male persons of color the right to vote; Maryland did not ratify either until 1959 and 1973, respectively. In addition, the state tried to revive a system of indentured servitude that was essentially the equivalent of re-enslaving young African Americans; the practice was struck down by the U.S. Supreme Court in 1867. African Americans were also subjected to “racial terror lynchings,” particularly if accused of violence or assault toward a white person; roughly 40 such occurrences prior to and after the Civil War have been documented in Maryland, but the exact number is unknown (MSA 2020:23-24, 46-47).

4.1.5 The Modern Period (1930 to Present)

The Modern period has witnessed the most profound changes to Montgomery County since the arrival of Europeans. The expansion of the federal government and the development of efficient automobile systems opened the county for suburban development. The number of farms was reduced to nearly half between 1920 and 1960, as several key governmental entities, such as the U.S. Nuclear Regulatory Commission and the Food & Drug Administration, or their supporting contractors, relocated or established themselves in the area. The Capital Beltway (I-495) was completed in 1964, spurring further growth in the county (Diamanti et al. 2008:30; P.A.C. Spero & Company 1996).

Demographics within Montgomery County also shifted during this period. As suburban growth increased, African American communities decreased. A rise in middle- to upper-income residents also occurred during this period. While suburban development remains the primary reason for this influx during this period, other reasons include the construction of technical businesses and research facilities (P.A.C. Spero & Company 1996). Today, Montgomery County is the most populous county in Maryland, and one of the most affluent counties in the United States (Mellnik et al. 2013; U.S. Census 2020); both positions are a result of its proximity to Washington, D.C.

4.1.6 Historic Aerial Analysis of the Archaeology Survey Area Landform

Analysis of historic aerials, including those from 1949, 1957, 1961, 1981 and 1994, clearly show the major benchmarks of development surrounding the archaeological survey area (Figures 35A and 35B). While the earlier 1949 and 1957 aerials show a relatively undeveloped area surrounding the location, the 1961 aerial clearly shows the effect that the construction of I-495 had on areas bordering the interstate (Figure 35B). The aerial shows the highway construction and the extent of grading and filling activities.

The 1994 aerial illustrates the 1992 expansion of I-495, which occurred primarily within the median (Havlik 2020). Additional site-specific analysis of the landform is provided throughout Section 4.4.

4.2 Previously Identified Cultural Resources and Site-Specific History

Prior to conducting field work, the potential of the archaeology survey area to contain significant archaeological resources and National Register of Historic Places-eligible (National Register-eligible) architectural properties was assessed by the MDOT SHA. The MDOT SHA assessment established the need for documentation of the cemetery within the archaeology survey area. A.D. Marble conducted background research examining the Maryland Historical Trust (MHT) site file maps and survey records, as well as examining the historic maps of the area. The background review also included research on previous cultural resource studies in the area and previously recorded architectural and archaeological resources to create a comparative context for the survey. Dovetail and A.D. Marble completed comprehensive documentary research specific to the Cabin John area, the Gibson Grove A.M.E. Zion Church, Moore's School, and the Moses Lodge. This section of the current report discusses that site-specific research, and summarizes those studies and resources within the archaeology survey area and a 0.5-mile (0.8-km) radius. Appendix B of the report includes detailed property chain of title for the Morningstar Tabernacle and Gibson Grove A.M.E. Zion Church.

4.2.1 Previous Surveys within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area

Two previous cultural resource surveys and one archaeological survey related to the Gibson Grove A.M.E. Zion Church were completed within 0.5 mile (0.8 km) of the archaeology survey area (Table 4). Digital copies of the reports were provided by MHT. The two most proximate surveys by Diamanti et al. (2008) and Alexandra Jones (2010) are discussed below, followed by the survey completed by American University in 1978.

Table 4. Previous Cultural Resources Surveys within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.

MHT File No.	Title	Author	Date
MO 236	Phase I Archaeological Identification Survey for I-495 Capital Beltway Mainline Project and Stormwater Management Ponds, Montgomery and Prince George's Counties, Maryland	Melissa Diamanti, David J. Rue and Conran A. Hay	2008
-	Gibson Grove A.M.E. Zion Church Gone But Not Forgotten: The Archaeology of an African American Church (Doctoral dissertation U.C. Berkley)	Alexandra Jones	2010
MO 14	Preliminary Archeological Reconnaissance of the Cabin John Relief Sewer, Montgomery County, Maryland (Contracts 78CT3604-A and 78CT3604-B)	June Evans	1978

Diamanti et al. (2008) completed a Phase I survey for the I-495 Capital Beltway Mainline Project and Stormwater Management Ponds in 2008. One survey area extended along the Capital Beltway to the northern boundary of the cemetery parcel. The investigations included the excavation of 1,110 shovel test pits (STPs) and 15 test units (TUs). No subsurface testing was completed adjacent to the current survey area; however, testing was completed approximately 0.4 mile to the west along Osage Lane (Station 173-176, Inner Side), within the area bordering Gibson Grove A.M.E. Zion Church (Station 191-193, Outer Side) [REDACTED] (Station 193-198, Inner Side; Figures 36 and 37).

Testing [REDACTED] consisted of four STPs (C128 to C131), all of which were negative for cultural material (Figure 36). Testing also occurred just to the southwest of Gibson Grove A.M.E. Zion Church [REDACTED] and consisted of two STPs (C80 and C81), both of which were negative for cultural material (Figure 37). The area was described as being located within lawn areas in residential backyards and a wooded area on the side of a small natural drainageway [REDACTED] (Diamanti et al. 2008:40). This area was likely one of the same spots tested by Jones during her 2008 survey, which she also found as negative for cultural material (Jones 2010:19). Archaeologists were denied access to test within the western portion of the area, and other portions were noted to be too steep to test.

Phase I testing within the area [REDACTED] from the cemetery entrance [REDACTED] consisted of six STPs (C79, A111 to A115) and a TU (TU A4; Figure 37). The tested area extended from an upland east into the floodplain [REDACTED]. The STP located on the upland recovered three historic ironstone ceramic sherds within the initial A-horizon. Tests located within the floodplain area extended to a depth of 5.8 feet bgs and recovered a piece of post-1935 container glass, a secondary quartz flake, and quartz shatter. The precontact material was identified as an isolated find (18MOX109-1), and no additional testing was recommended for the area (Diamanti et al. 2008:40).

Overall, the 2008 survey resulted in the identification of nine archaeological sites and ten isolated precontact finds along I-495. Additionally, resources associated with two previously identified sites (18MO514 and 18PR220) were also identified during the survey. One of the two previously identified sites and eight of the nine newly identified sites were recommended not eligible for the National Register (Diamanti et al. 2008). None of the identified sites were recorded within or near the current archaeology survey area.

Alexandra Jones completed historical research and archaeological excavations within the Gibson Grove A.M.E. Zion Church property for a 2010 doctoral dissertation at the University of California (U.C.) Berkeley (Jones 2010). The main objective was to identify the location and recover the remains of two children that were thought to have been buried on the church property prior to 1912. The excavations spanned two months in the summer of 2008, and included three phases of investigation consisting of Total Station mapping/pedestrian survey (referred to as Phase I), metal detection survey/phosphate soil testing/STPs (referred to as Phase II) and TUs (referred to as Phase III). The information presented in the following section is taken from the aforementioned 2010 doctoral dissertation.

Phase I of the survey consisted of Total Station mapping of the church site and a comprehensive pedestrian survey of the site and cemetery. A 2-meter-by-2-meter grid was established across the site, the cross points of which would later serve as STP locations. [REDACTED]

[REDACTED] Analysis of the elevation data from the mapping and features identified during the pedestrian survey revealed that these two stones were the only anomalies present within the site (Jones 2010:20).

The project then moved into Phase II of the survey, consisting of a metal detector survey, phosphate soil testing, and the excavation of STPs. Ground-penetrating radar was also planned

during this phase, but was unable to be completed due to schedule conflicts. The metal detector survey of the site identified 36 hits where metal was present; each location was marked with a flag (Jones 2010:20). Unfortunately, the metal detecting did not yield any useful information on the location of the burials, and recovered mostly nails associated with the 2004 church fire. Soil sampling, using a hand-auger, was subsequently completed across the 2-meter-by 2-meter grid and included a control sample from off-site (Jones 2010:24). With no significant amount of phosphates (typical of soils with burials) detected during the soil sampling, the survey moved to the excavation of STPs. Like the soil sampling, the STPs were placed across the 2-meter-by-2-meter grid. Additional tests were placed in the yard in front of the church structure to ensure the entire property was tested (Jones 2010:24). STPs were to be excavated to a meter below ground surface; however, dense roots prevented this in some tests.

A total of 51 STPs were excavated at the church site, and 848 artifacts were recovered, with 26 tests (or 51 percent) being completely sterile of cultural material (Figure 38). The artifacts included solely architectural material likely related to the 2004 church fire. Jones noted that the lack of other types of artefactual material, such as those from domestic, activity, and personal artifact groups, was baffling considering the property had been in constant use for over 100 years (Jones 2010:25). Based on the results of the first two phases of survey, it was concluded that no burials were located within the church site, but were more likely buried within the adjacent property, which had been sold years prior to the start of the archaeology project (Jones 2010:3, 27).

The final phase of the survey (Phase III) involved the excavation of six 1.5-meter-by-1.5-meter TUs within the church site. The locations of these TUs were based on the results of the earlier phases of the survey, and they were also placed within areas that would give an accurate sample of the site. Again, much like the STPs, the primary artifacts recovered from the TUs were architectural in nature, likely related to the 2004 church fire (Jones 2010:30). The exceptions to this were a President Wilson button, a few pieces of container glass, and a few ceramics (Jones 2010: Appendix C).

Jones's conclusions were two-fold. Firstly, if there were ever any burials within the current church site, large tree roots would have likely disturbed them so severely that they would not be detectable today. Secondly, the absence of artifactual proof, including items typically placed on top of graves and non-architectural artifacts, indicated that the back portion of the church property was not intensively used, including as a burial ground (Jones 2010:31).

The American University completed a preliminary archaeological reconnaissance of the Cabin John Relief Sewer approximately 0.11 mile east of the archaeology survey area in 1978. The survey concluded that no known precontact sites would be impacted by the project, and that one historic site, Magruder's Mills, would be impacted during construction. Measures were recommended to preserve the integrity of the site (Evans 1978).

4.2.2 *Previously Recorded Archaeological Sites within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area*

There are no previously recorded archaeological resources within the archaeology survey area. However, two previously recorded archaeological sites are located within 0.5 mile (0.8 km) of the archaeology survey area: the MacDonald Dodd Site (18MO242) and the Booze Site (18MO457; Table 5). The MacDonald Dodd Site (18MO242) consists of a precontact quartz lithic scatter with an unknown temporal affiliation. The Booze Site (18MO457) consists of a Late Archaic and Early Woodland period short-term camp. Richard Slattery collected this site in 1934, and the collection is now at the Smithsonian Institution. Originally, the collection was recorded as containing a mortar and pestle, ceramics, a Savannah River point, and a bifurcate base point. The update form completed in 1999 lists a Savannah River/Holmes point and a Calvert point. Neither of these two sites has been formally evaluated by MHT staff for National Register eligibility.

Table 5. *Previously Recorded Archaeological Resources within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.*

MHT No.	Site Name	Type	Temporal Period	National Register Eligibility
18MO242	MacDonald Dodd	Precontact lithic scatter	Precontact unknown	Not Evaluated
18MO457	Booze	Short-term camp	Late Archaic and Early Woodland	Not Evaluated

Source: MHT 2021

4.2.3 *Previously Recorded Architectural Resources within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area*

Eleven architectural properties previously recorded with the MHT have been identified within a 0.5-mile (0.8-km) radius of the archaeology survey area, and none of these properties is located within the archaeology survey area (Table 6). One of the properties (Carderock Springs Historic District, M: 29-59) is listed in the National Register. The remaining properties are either recommended eligible (n=4), not eligible (n=1), or not evaluated (n=5).

Table 6. *Architectural Properties within a 0.5-Mile (0.8-Km) Radius of the Archaeology Survey Area.*

MIHP No.	Name	Date	Description	Eligibility Determination
NR/ M: 29-59	Carderock Springs Historic District	1962-1966	Modernist housing development	Listed
M: 29-38	Glenmore	1870	Building	Eligible
M: 29-39	Gibson Grove A.M.E. Zion Church	Early twentieth century	Church	Eligible
M: 29-42	Stoneyhurst Quarries	Nineteenth to twentieth century	Granite stone quarries	Eligible
M: 29-59-1	Greenfield House	Documentation not received	Building	Not evaluated
M: 29-69	Olde Carderock	No documentation on file	Historic district	Not evaluated
M: 29-80	Cabin John Stream Valley Park	Documentation not received	Park	Not evaluated

MIHP No.	Name	Date	Description	Eligibility Determination
M: 35-18	W. Lynch House	Ca. 1887	Building	Not eligible
M: 35-19	William Dowling House	Mid-nineteenth to early twentieth century	Farmhouse	Eligible
M: 35-194	Carderock Springs South	Documentation not received	Historic district	Not evaluated
M: 35-195	Prelude	Unknown	Historic district	Not evaluated
M: 35-212	Morningstar Tabernacle No. 88 Moses Hall and Cemetery	Late nineteenth through twentieth century	Cemetery and former lodge	Eligible

Source: MHT 2021

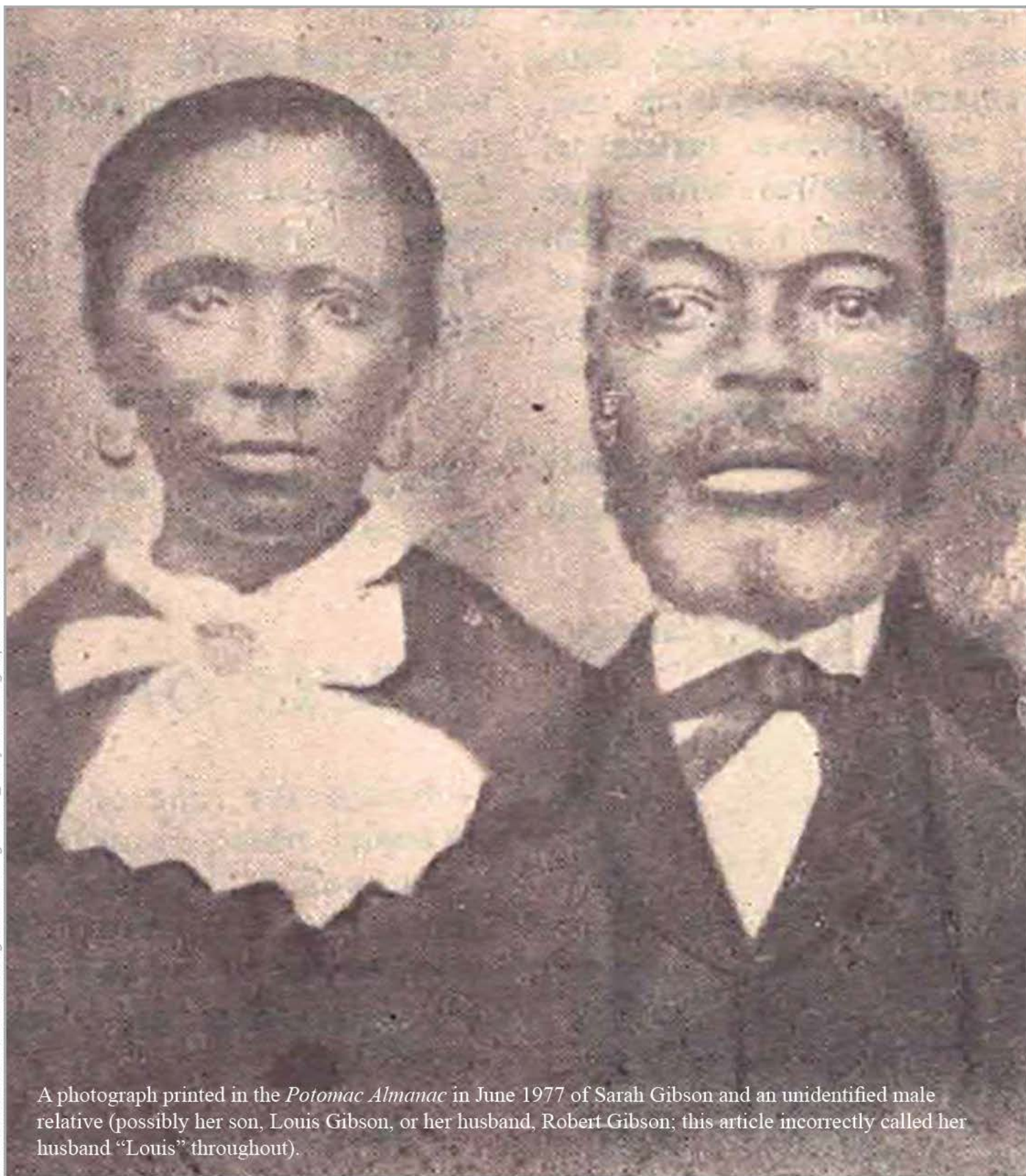
MDOT SHA completed an MHT Determination of Eligibility form for the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212); the form defined the historic property boundary to include the three property parcels and does not include the MDOT SHA ROW. The property as defined was determined eligible for the National Register (Manning 2020). MHT concurred with this eligibility determination on September 4, 2020. The other nearest and most relevant historic property to the archaeology survey area is the Gibson Grove A.M.E. Zion Church (M: 29-39),

and it is discussed in Section 4.3.

4.3 Site-Specific History

Cabin John is an unincorporated area in Montgomery County, Maryland, and is named for the creek that serves as its eastern boundary; at the time of this study, the area was also roughly bounded on the north by the Capital Beltway (I-495), on the west by Persimmon Tree Road, and on the south by the Potomac River. Gibson Grove was a community of African Americans that began to settle along Conroy Road (today's Seven Locks Road) ca. 1870, and takes its name from Robert and Sarah Gibson, former enslaved persons who purchased property in the Cabin John area in 1880 (Figure 39). The Gibsons provided land for the community's first school (Moore's School) and church (Gibson Grove A.M.E. Zion Church) for African Americans. While the school provided the children with an education and the Gibson Grove A.M.E. Zion Church met the community's spiritual needs, the Morningstar Tabernacle No. 88 Moses Hall served as a space for social, civic, and cultural interactions, and supported the economic needs of the community, including burial costs and benefits for sick, disabled, orphaned, or widowed members.

The following subsections provide a summary history of Cabin John and the Gibson Grove community, the Gibson Grove A.M.E. Zion Church, Moore's School, and Morningstar Tabernacle No. 88, focusing mostly on land transactions, as well as building and landscape history/features. Aside from deed, plat, and census records, these subsections relied on works by others, such as L. Paige Whitley, Alexandra Jones, and various sources available at the Montgomery County Historical Society, as well as works located online and provided by local residents. A complete bibliography is included at the end of this report for those who are interested in learning more about the Cabin John area/Gibson Grove community.



A photograph printed in the *Potomac Almanac* in June 1977 of Sarah Gibson and an unidentified male relative (possibly her son, Louis Gibson, or her husband, Robert Gibson; this article incorrectly called her husband "Louis" throughout).

Figure 39

Historic Photograph of Sarah Gibson

Documentation of the Morningstar Tabernacle No. 88

Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study and
Remote Sensing of the Morningstar Cemetery and the Gibson Grove A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland



4.3.1 Cabin John Area/Gibson Grove Community

During the eighteenth century and first half of the nineteenth century, the majority of the Cabin John area was owned by a few white landowners who possessed large tracts of land; research indicated that at least some of these landowners cultivated their tracts using enslaved labor (U.S. Census 1850). The earliest patent in the Cabin John area appears to be the 65-acre “Fletchall Garden,” patented to Captain Thomas Fletchall on July 9, 1715 (Prince George’s County Circuit Court [PGCCC] 1715). The other major early patent in the area was the 100-acre “Reads Delight,” which was patented to John Read on November 23, 1738 (PGCCC 1738).

In 1784, Joseph White patented “Bite the Biter,” which contained 135 acres of land (Frederick County Circuit Court [FCCC] 1784). Throughout the late eighteenth and early nineteenth centuries, the White family’s landholdings grew to include “Reads Delight” and “Duleys Chance.” In 1844, the family estate was bequeathed to Joseph “Gus” White (Joseph White’s grandson) upon his mother’s death (Whitley 2020a:3-4). Around the end of the Civil War, Joseph “Gus” White began selling large tracts of the estate to pay for large debts he had accumulated.¹ One of the families to which White, and later, his estate, sold land was the Dowlings. On March 6, 1866, White sold 202.5 acres to William Dowling for \$4,657; Dowling would establish his dairy farm, Graceland, on this tract (Montgomery County Deed Book [MCDB] EBP 2:556). Coincidentally, in 1885, William’s brother, Thomas, and sister-in-law, Amanda (Thomas’s wife) purchased Graceland from the Claggett family after William’s death (MCDB EBP 36:246). Joseph “Gus” White’s estate sold land to Amanda Dowling, as recorded by a trustee deed filed on April 13, 1876, for a total of \$4,725.62; this sale included roughly 251 acres comprised of portions of the “Carderrock,” “Reads Delight,” “Hallifax,” “Duley’s Chance,” “Mills Use,” “Robert’s Lot,” and “Bite the Biter” patents (MCDB EBP 14:441). Separately, Thomas Dowling acquired more than 260 acres from Sallie Fitzhugh and John Saunders for \$6,394 on November 14, 1866 (MCDB EBP 3:263).

J.D.W. (John Duke of Wellington) Moore was another large landowner in the Cabin John area during the mid- to late nineteenth century. The Moore family had operated a large farm for many years, as well as a stone quarry to provide stone for the C&O Canal constructed in this area in the 1830s through 1850 (Bauman 2013:11, 27). Both of these Moore family ventures employed local African Americans (Jones 2010:12). By 1884, he had amassed approximately 384 acres through four land transactions. On December 1, 1852, he purchased 107 acres within “Doull’s Park” from Robert B. Davidson for \$159.37 (MCDB JGH 2:242). Moore purchased 118 acres in “Carderrock” from George Peter and James B. Davidson on March 1, 1879, for \$3,003; he purchased an additional 96 acres in “Carderrock” from Charles and Mary Claggett for \$1,741.50 on April 5, 1884 (MCDB EBP 20:22, EBP 32:82). On May 19, 1880, he purchased 63 acres in “Dunalls Park” from Benjamin F. and Mary Jane Hamilton for \$15 (MCDB EBP 22:261).

¹ Dr. Samuel Claggett Busey, Joseph “Gus” White’s half-brother, recounted that White’s “fortune was wasted through [his] inattention to business and security obligations, and he died [in 1870] so poor that his estate was consumed in the payment of such debts” (Busey 1896:23). A review of the grantor and grantee indices for Montgomery County sheds light on how Joseph “Gus” White became ensnared with debt. Between 1846 and 1870, White made at least four separate land purchases, as well as six mortgage agreements. He also sold approximately 14 tracts of land, in addition to several leases or mortgages he guaranteed.

The first African American known to have purchased land in the Cabin John area was Peter Jones, which is documented in an 1870 deed from Charles Dodge (Whitley 2020a:9). On January 22, 1880, Thomas and Amanda Dowling, who were residing in Washington, D.C., sold 3.25 acres and 36 square perches to Robert Gibson for \$100; this parcel was part of the “Carderrock” tract patented by Robert Peter in 1802 (MCCC 1802; MCDB EBP 22:62). According to descendants, Robert and his wife, Sarah (Figure 39), for whom the community is named, had been enslaved persons on a plantation in Northern Virginia, about 10 miles from Bull Run. Robert served as wagonmaster, while Sarah was a domestic seamstress who worked in the fields when her sewing was finished for the day. Having been told by Union soldiers that they were free to leave the plantation, Sarah and her two children became separated from Robert. Sarah headed toward Bull Run, where, according to oral tradition, she and the children managed to cross its waters on a log. From there, they walked to Washington, D.C., and headed to Shiloh Baptist Church, which had been established in 1863 by 21 former slaves from Frederick, Virginia, where they were eventually reunited with Robert. The Gibsons found work on a farm in Potomac, Maryland, and after about 16 years were able to buy the parcel of land noted above (Jones 2010:12; Semmes 1977; Whitley 2020a:8).

Whitley (2020a:8) also notes that by 1880, the Census shows that “a few African American families clustered around J.D.W. Moore’s estate south of River Road. These included widower Peter Carter, living in the Moore family household as a laborer, and the families of Dennis Coates, Peter Jones, Charles Harris and Silas Richards nearby. Robert Gibson’s family now lived south of River Road not far from John Saunder’s *Ellerslie* estate.” During the 1880s, Moore sold several 5-acre parcels to a number of African American families who had worked on his farm, including:

Peter Holmes (January 1885); James Coats (February 1885); Henry Carter, Philip Jackson (Sr.), Lloyd Jackson, George Scott, Daniel & Maria Grey, and Charles H. Brown (April 1885); Peter & Dorcas Jones (February 1887, having moved from Alms House property); and George Frye (November 1887; Whitley 2020a:9).

A number of Cabin John/Gibson Grove community members worked for Clara Barton, founder of the American Red Cross, at the organization’s Northwest D.C. headquarters, and, later, at a new building constructed in Glen Echo by community residents. This building was first used as a warehouse until a total renovation in 1896-1897 transformed it into an office; the work was again performed by Cabin John/Gibson Grove residents (Whitley 2020a:9). Whitley (2020a:9-10) details the close relationship between the Red Cross and the Cabin John community, especially Emma Jones, who served as Barton’s “nurse and housekeeper,” as well as a practicing midwife serving the community for many years.² Additional Gibson Grove residents employed by Barton in Glen Echo included Robert Jones as a general groundsman and handyman; Jones’s mother, Frances Walker, as caretaker of the property; Silas Richards, as “manager of stock” and groundskeeper, and his wife, Lucy, as part-time housekeeper; and Charlie Jones, grandson-in-law to George Scott (Clara Barton Papers: Diaries and Journals: May 17-Sept. 5, 1897, as stated within Whitley 2020a). Daisy and Odelia Jones, daughters of Robert and Emma, helped in Barton’s kitchen and house at times.

² For more on Emma Jones and Clara Barton, see L. Paige Whitley’s *The Midwife and the Nurse: Emma Jones of Cabin John and Clara Barton of the American Red Cross*, working paper, April 2020 (Whitley 2020a:9).

4.3.2 Gibson Grove African Methodist Episcopal Zion Church

The Gibson Grove A.M.E. Zion Church has been a vital part of the Gibson Grove community throughout its existence. Gibson Grove was one of three A.M.E. Zion churches in Montgomery County. The other two are Scotland A.M.E. Zion, founded in 1906; and Clinton A.M.E. Zion, founded in 1867 (Clinton A.M.E. Zion Church 2012; *The [Potomac] Almanac* 2001; Rivers 1992).

Although the origins of the Gibson Grove A.M.E. Zion Church are unclear, it appears there was a congregation as early as 1886, when *The National Republican* (1886:1; Figure 40) reported in May that the Reverend W.H. Wright was appointed to “the Union Wesley and Gibson Grove Circuit” by Bishop Hood of the African M.E. Zion Conference. There may have been church services held on the grounds as early as 1880, though no definitive evidence can be found to verify it. The New York African Methodist Episcopal Church began in New York City in 1796, emerging out of frustration with the white Methodist Church’s pro-slavery beliefs and unwillingness to promote black ministers, among other grievances. The group existed within the Methodist Church until it fully broke away in 1820, when then leaders voted to leave the Methodist Episcopal Church. In 1848, the word “Zion” was officially added to the denomination’s name to make clear they were separate from the A.M.E. Church, which had been established in Philadelphia in 1794. Growth was limited for the A.M.E. Zion Church at first, but after the Civil War, it sent missionaries to the southern states to establish new churches and promote the spiritual uplift of the newly freed African Americans (Center for Historic Preservation Middle Tennessee State University [CHPMTSU] 2000:7-10). The denomination’s circuit ministers covered the territory of several “churches or charges under one minister, who has the spiritual oversight of them, he being in charge of them all, goes round among them, and is often denominated circuitrider [sic]” (Turner 1885:52). Newspaper clippings provide an outline of the ministers that served the congregation during the early years: Reverend W.H. Wright (re-appointed 1888), Reverend J.W. Martin (appointed 1893), and Reverend W.H. Cook (appointed 1895; *Evening Star* 1888:5, 1893:11, 1895:8).

The earliest identified deed directly relating to the subsequent founding of the Gibson Grove A.M.E. Zion Church is the aforementioned 1880 sale from the Dowlings to Robert Gibson (a full chain of title can be found in Appendix B: Table 1). In 1881, Sarah and Robert Gibson sold 0.25 acre of their land “for the purpose of erecting a house thereupon as a school house and house of worship” for the African American community (MCDB EBP 24:296). According to Whitley (2020a:14), a schoolhouse was erected on the site. The county School Board purchased the land and schoolhouse in 1882 (MCDB EBP 26:104).

It could not be ascertained if the church congregation ever used the schoolhouse for their services, but on June 20, 1898, Sarah Gibson sold another portion of the original 1880 lot (acreage unspecified) to five trustees of the Gibson Grove A.M.E. Zion Church for \$5. The purpose of the sale, according to the deed, was to use the premises “as a place of Divine Worship for the use of the ministry and membership of the African Methodist Episcopal Zion Church in America,” in accordance with the rules of the Annual Conference and the General Conference (regional and national governing/legislative bodies of the denomination), of which Gibson Grove is a member (MCDB TD 4:191). Sarah herself was one of the trustees, along with George Scott, John Price,

African M. E. Conference Appointments.

HARRISBURG, PA., May 25.—The African M. E. conference adjourned this afternoon, to meet in Philadelphia on the second Wednesday in May, 1887. A purse was presented to Bishop Hood as a testimonial from his people. Bishop Hood announced the appointments for 1886-'87: Baltimore districts—S. S. Wales, presiding elder, Wesley Zion, Washington, D. C.; R. H. G. Dyson, Union Wesley, Washington, D. C.; J. H. Hector, Galbraith, Washington, D. C.; N. J. Green, Arlington, Va.; J. F. Waters, Laurel, Md.; Charles Roles, Huntingdon and Burrville; L. Johnson, Rockville and Oak Grove; C. H. Wye, Union Wesley and Gibson Grove; W. H. Wright, Zion Church, Baltimore; M. H. Ross, Peach Bottom; J. R. Johnson, York, Pa.; S. W. Olley, Gettysburg; D. Davis, Williams Grove and Salisbury; A. J. Spencer, Baltimore Mission; J. W. Martin, Seabrook; S. W. Johnson.

Excerpt from *The National Republican* published on May 26, 1886, detailing African Methodist Episcopal Minister appointees.

Figure 40

Excerpt from *The National Republican* Published on May 26, 1886

Documentation of the Morningstar Tabernacle No. 88

Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study and Remote Sensing of the Morningstar Cemetery and the Gibson Grove A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland



Philip Jackson, and Hillery Hebron. The parcel was described as being adjacent to the schoolhouse lot (at that point owned by the school board). It was on this parcel that the congregation built their house of worship, a log cabin on the west side [REDACTED], which they used until 1923. At that time, they built another church on the same parcel; sources consulted indicate the new church was constructed to the south/southwest of the ca.-1898 log structure, but the citations in the sources are either incomplete or reference oral traditions; thus, the spatial relationship of the two buildings could not be confirmed (Jones 2010:14; Kytle 1976:44; Whitley 2020a:15). The Klinge real estate map from 1931 (Figure 41) shows two buildings on the Gibson tract, the 1923 church building in the southern portion of the original parcel, and what was likely the Gibson's dwelling toward the north; the old schoolhouse does not appear to be depicted on the map.³

In 1937, the Works Progress Administration, Federal Writers' Project conducted research on churches; the survey form for the 1923 Gibson Grove A.M.E. Zion Church described it as a "plain frame meeting house type building with belfry and bell. Cornerstone 'A M E Zion Church 1898 Rebuilt 1923.' No special features" (Mower and Cole 1937; Figures 42 and 43). The researchers recorded the first settled clergyman as N.G. Stevenson (served 1923-1925), and that the church kept no typical records, such as minute books; baptism, marriage, member, or death registers; Sunday School record books; financial records; or unpublished historical sketches. It is not known whether the surveyors had interior access to the building, or if they spoke with the minister or one of the congregants (Mower and Cole 1937).

Historic aerials indicate the church received a small addition, likely the social hall noted below, on its south elevation between 1949 and 1957 (NETR 1949, USDA 1957; Figure 35A). In May 1958, Sarah's grandson, Robert Gibson (unmarried); great-grandson, Wilson Gibson; and Wilson's wife, Fannie, sold a 0.37-acre tract of land to the Trustees of Gibson Grove A.M.E. Zion Church for \$10 (L. Paige Whitley, personal communication 2020b; MCDB CKW 3162:239). At the time of the sale, the trustees of the church included Snowden Dove, Charles Williams, Claude Clifton, Henry Shields, John Jackson, Nathaniel White, and Charles White. The acreage transferred in this deed matches the acreage of the current (2021) parcel; therefore, it is unclear if this deed reconfirmed the previous sale of land to the church by Sarah Gibson, or if it was additional land that a subsequent sale reduced the parcel back to 0.37 acre.

The 1923 Gibson Grove A.M.E. Zion Church building had a rear, frame, front-gabled ell added in 1979 (The [Potomac] Almanac 2001). On May 10, 1979, the *Potomac Times* featured two photographs of the new annex and its dedication ceremony at the church, led by Reverend Robert White (Figure 44). The addition to the church served as an all-purpose room, and the old social hall was converted into offices and utility rooms (*Potomac Times* 1979). The layers of change in the church building (the mid-twentieth-century addition and the 1979 ell) reflect the progress and

³ Frank H.M. Klinge created real estate maps of Montgomery County throughout the first half of the twentieth century. These maps showed property owners' names and other prominent local landmarks, although it is unclear how accurate the information is as, for example, the 1931 map shows Sarah Gibson as a landowner, though she had passed away in 1923, and the Morningstar Tabernacle No. 88 is not shown, despite deeds for land sales dating to 1887 and 1901 (MCDB TD 17:493-494; Whitley 2020a:27). Despite these potential flaws, the maps from 1931 through 1959 provide an idea of the evolution of the properties around Gibson Grove A.M.E. Zion Church and the Morningstar Tabernacle No. 88 Moses Hall.

growth of the local community and flourishing congregation. This was not uncommon in the South, as “better church buildings became possible with challenge and eventual smashing of Jim Crow segregation” which was followed by an “intensified period of church building and modernization” (CHPMTSU 2000:43).

The Gibson Grove A.M.E. Zion Church congregation held a service on January 19, 2003, at which they voted to discontinue services at the church building because they only had a few members left and could not maintain the building and grounds. However, the church building continued to function as a place of worship. The Gibson Grove A.M.E. Zion Church belongs to the African American Episcopal Zion Annual Conference, and the Reverend Edgar Bankhead, Sr., was appointed by the National Conference in 2002 to occupy, restore, and refurbish the church. Reverend Bankhead pastors the First Agape A.M.E. Zion Church, a congregation that had been worshipping in an elementary school in Kensington (*The Village News* 2003).

On February 25, 2004, fire broke out in the historic Gibson Grove A.M.E. Zion Church after an old oil furnace backed up and exploded, engulfing the building in flames. No one was injured, but the fire caused damages worth \$500,000, including gaping holes in the roof, blown-out windows, charred heaps of drywall and insulation, exposed wooden beams, and hacked open doors; however, much of the exterior of the building survived (Figure 45). Reverend Bankhead and his congregation had spent the previous year renovating the building, including installing a new roof, new insulation, new walls, and painting the exterior. The oil furnace that exploded had been on the repair list for some time; they had been waiting for a gas hookup to be installed (Soladay 2004; *The Village News* 2004). After the fire, the members held services at Adat Shalom in Bethesda while planning reconstruction of the church building.

In 2006, the A.M.E. Zion Church Annual Conference (the Conference) transferred the building to the new congregation, First Agape A.M.E. Zion Church, for \$2. The deed ensured that the property must be used as a place of worship for the “African Methodist Episcopal Zion Church in America” (that is, the Conference), which retained ownership (MCDB MQR 32789:178–179). By 2008, the First Agape A.M.E. Zion Church raised enough money to begin renovations on the church building. However, a member of Gibson Grove A.M.E. Zion Church, who was a descendant of the White and Crawford families, made it known that her family had been buried on the church property (Jones 2010:2). An article in the local *Village News* also claimed that until 1912, the church property was used for burials (*The Village News* 2003). A plat drawn in 1961 as part of the construction of I-495 supported the oral history, [REDACTED]

Alexandra Jones volunteered to conduct an archaeological investigation of the church property as part of her dissertation research; Ms. Jones’ investigation is further discussed in Section 4.2.1. At the time of this report, the First Agape A.M.E. Zion Church retained plans to repair the structure and reopen the church building.

4.3.3 Moore's School/Cabin John School at Gibson Grove A.M.E. Zion Church

As noted in Section 4.3.2, Robert Gibson and his wife, Sarah, sold 0.25 acre of their land [REDACTED] in trust to J.D.W. Moore, Silas Richards, and Peter Carter in February 1881 to build a schoolhouse and place of worship for the use of the African American community (MCDB EBP 24:296; a chain of title with deeds related to the schoolhouse can be found in Appendix B: Table 2). One year later, J.D.W. Moore, Silas Richards, and Peter Carter sold that land, which had been improved with a schoolhouse, to the Board of County School Commissioners for \$32.23 (MCDB EBP 26:104). Whitley (2020a:14) noted that the school was of log construction, but research did not uncover any photographs to confirm, and the subsequent deed just noted there was a schoolhouse. According to Clarke and McKinney (1976), the schoolhouse, known as Moore's School, was a single room, measuring 16 feet by 24 feet, [REDACTED]

For unknown reasons, on March 28, 1911, Moore's School was closed, and the school board rented the original Gibson Grove A.M.E. Zion Church log building for the African American children, paying \$7.72 in total rent to the church's trustees; the balance of the money was reportedly used to build an outhouse. According to Clarke and McKinney (1976), the name was changed to Cabin John Elementary School, but Whitley (2020a:15) claims it was always called Cabin John School in Montgomery County records. Trustees for the school at this time included William Harper, Ida Dove, Edward Jones, Robert Carter, Lloyd Jackson, C.H. Brown, Robert Jones, John Robinson, William Gibbs, Toliver Wallace, James Crawford, Phillip Jackson, and Charles Jones. Some of these names appear on the 1931 Klinge map as local landowners, and it is likely that many were also members of the Morningstar Tabernacle No. 88 Moses Lodge (Figure 41). The teachers reportedly included Paul Smith, Florence Johnson, William Luckett, William H. Ferguson, Giles White, Jennie Peters, A.J. Neverson, Estelle Brooks, Rebecca Underwood, Margaret Wood, M.E. Harrison, and Estelle Brooks (Clarke and McKinney 1976; Whitley 2020a:16). M.E. Harrison may refer to M.E. Harris, or Mary Elizabeth Harris, who owned a parcel of land north of the Morningstar Cemetery on the opposite side of the shared access road (State Roads Commission 1961:Plat No. 23509).

On January 22, 1922, the County Superintendent, Edwin W. Broome, recommended that the Cabin John School be closed due to low attendance. This left 24 children without a school for five years. On February 14, 1926, a group of Cabin John/Gibson Grove-area parents appeared before the Montgomery County School Board and requested that a location be obtained for a new school. Despite the availability of land in the vicinity, on May 13, 1926, the board authorized a \$5 monthly rent to be paid to Morningstar Tabernacle No. 88 Moses Lodge [REDACTED]. From 1926 to 1931, the African American children of Cabin John/Gibson Grove attended school at that location. On September 8, 1931, the school at Moses Hall was closed, and the children were sent to the nearby River Road School. African American children from the community continued to attend River Road School until the landmark 1954 *Brown v. Board of Education* ruling, and the integration of Montgomery County schools began (Clarke and McKinney 1976).

4.3.4 *Morningstar Tabernacle No. 88 Moses Lodge*

Following the Civil War, African American secret and/or benevolent societies were established to provide an informal insurance system due to discrimination by local and national insurance companies who refused to provide these services to African Americans. These societies proliferated during the late nineteenth century. Members typically received benefits due to hardship or death, but also derived status and elevated social positions in their communities. W.E.B. DuBois noted that church, fraternal, and benevolent organizations were of utmost importance in the African American community (Kathan et al. 2017:24). DuBois explained:

Their real function is to provide a fund for relief in case of sickness and for funeral expenses. The burden which would otherwise fall on one person or family, is, by small regular contributions, made to fall on the group. This business feature is then made attractive by a ritual, ceremonies, officers, often a regalia, and various social features. (DuBois 1995:233)

Morningstar Tabernacle No. 88 was a local chapter of an African American fraternal organization and benevolent society known as the Ancient United Order of the Sons and Daughters, Brothers and Sisters of Moses (sometimes simply called the Moses Order; herein the latter will be used). Founded by Peter Paul Brown outside Philadelphia in 1867, the Moses Order had chapters throughout the country, including 11 chapters in Baltimore alone (Rotenstein 2018:39-43). The chapter closest to the Gibson Grove community, White's Tabernacle No. 39, was located in the Tenleytown neighborhood in Washington, D.C. (Kathan et al. 2017:24). The Moses Order and other African American benevolent societies were founded to provide safety nets and economic security that were not accessible to African Americans through traditional institutions. Assistance included insurance, loans, burials, and educational programs, all of which were supported by monthly dues (Rotenstein 2018:39-43). Members of Morningstar Tabernacle No. 88 often referred to their facility as Moses Hall, or simply the Lodge building. Social events, dinners, and dances were held in the Lodge, in addition to their regular meetings. There were different divisions of the organization for children, adult females, and adult males (Kathan et al. 2017:25). Research revealed that many, if not all, of the heads of households in the Gibson Grove community belonged to both the Gibson Grove A.M.E. Zion Church and the Morningstar Tabernacle No. 88 Lodge (Whitley 2020a:19). While interviews with local residents and State Roads Commission plans indicated two or three burials at the Church, many community founders and residents, including Sara Gibson and Emma Jones, were buried on the Moses Order Lodge property (see Figure 46; Jones 2010:52-53).

An exact founding date for Morningstar Tabernacle No. 88 is not known. A recovered portion of the chapter's minutes books indicates Morningstar Tabernacle No. 88 was definitely established by 1904, when the surviving portion begins.⁴ It seems more likely that the chapter was founded by 1887, when an 8-foot wide access road [REDACTED] was conveyed to Morningstar Tabernacle No. 88 by George and Sarilla Scott (MCDB TD 17:493). Another deed filed the same day (September 26, 1901) records the sale of 1 acre of land to the chapter from J.D.W. Moore on September 7, 1901 (MCDB TD 17:494). While these two deeds provide evidence of an active

⁴ The minutes were reportedly recovered near the ruins of Moses Hall by Montgomery County Department of Parks employee Peter Noursi in 1997.

chapter owning the land, they do not confirm the presence of a lodge building. Evidence for such a structure may come from a March 21, 1933, deed between the unincorporated Morningstar Tabernacle Number 88 chapter to the newly incorporated, not-for-profit corporation the chapter formed called, “The Board of Trustees of Morningstar Tabernacle Number 88, Incorporated,” which states:

Whereas Morningstar Tabernacle Number 88, Ancient United Order of Sons and Daughters, Brothers and Sisters of Moses “for *more than forty-five years last past* have been in possession of, used and occupied as its lodge home the lands and premises hereinafter mentioned... (emphasis added; MCDB CKW 552:191)⁵

However, the deed goes on to say, “...at a regular meeting of said organization held on 8th day of March, 1933, at its lodge hall upon said premises.” The wording of these two excerpts appears to differentiate between “lodge home,” “premise,” and “lodge hall,” as “place to gather,” “parcel of land,” and “actual Lodge building,” respectively. Therefore, while the land itself may have been in use by Morningstar Tabernacle No. 88 as early as 1887, an actual lodge building may not have been present initially. The recovered portion of the minutes books does mention a “\$110.00 draft [unreadable text] repairing the hall” from the January 27, 1904, meeting (Morningstar Tabernacle No. 88 1904:1). This is the clearest evidence indicating that Moses Hall was constructed between 1887 and 1904.

Several instances occur in the surviving minutes that refer to the maintenance of the Morningstar Tabernacle No. 88 Moses Hall and the surrounding grounds. Aside from the repairs noted in the above paragraph, in January 1909, the chapter passed a motion for Charles Harris to clean up the bushes behind the hall (Morningstar Tabernacle No. 88 1909:82). A similar motion was passed in March 1910, to pay Charles Harris for cleaning up the hall grounds; the chapter also passed a motion at that meeting to pay Harris for enlarging the hall, as well as plastering and whitecoating the walls (Morningstar Tabernacle No. 88 1910:84). The next month, the chapter approved more repairs to be completed by William Hamilton for the sum of \$130 (Morningstar Tabernacle No. 88 1910:84-85). In July of that same year, Hamilton was employed to fix the windows in the hall for \$5 (Morningstar Tabernacle No. 88 1910:87). Louis Burley was hired to whitewash the building, and Henry Carter was hired to hang the door and frame the windows in December 1912 (Morningstar Tabernacle No. 88 1912:120). The next month, January 1913, George Carter was hired to clean outside of the hall, while B. Jackson was hired to oil the floor on the interior (Morningstar Tabernacle No. 88 1913:121). The various mentions of maintaining the grounds may indicate that outdoor events were held on the property and/or the upkeep of the cemetery.

Aside from insurance and social benefits, the Morningstar Tabernacle No. 88 established a cemetery for the Gibson Grove community on its property. The surviving portion of the minutes indicates that grave plots sold for \$1.50 at that time (Morningstar Tabernacle No. 88 1907:48). There are also at least seven references to funerals of members of the chapter in these minutes. In the early twentieth century, burials typically cost the Lodge \$20 per member (paid for by the dues that were collected at each meeting), and money paid out to the widow was around \$17.50. Sick dues payouts, around \$1, might also be paid to the member or to the widow, if the deceased person

⁵ The deed transferred both the land titles to the road from the 1887 deed and the 1-acre parcel from the 1901 deed from the unincorporated chapter to the Board of Trustees (MCDB CKW 552:191).

was sick leading up to their death. The preacher was usually paid \$35 for presiding at the funeral (Morningstar Tabernacle No. 88 1905:18). Sometimes a carriage or vehicle was also hired to bring the family of the deceased to the funeral, which cost between \$2 and \$4.50 (Morningstar Tabernacle No. 88 1906:30, 32). The chapter members would march to the house of the deceased, and the preacher would lead a hymn and prayers. They then walked back to the hall, where the funeral was conducted. Other members would say a few words over the deceased, and hymns such as “I Have Anchored O’ My Soul” were sung. If the member was to be buried at Morningstar Cemetery, then the body would be buried immediately thereafter. The members then went inside the hall, and roll was called (Morningstar Tabernacle No. 88 1905:19). Interments were being made at Morningstar Cemetery by at least September 4, 1894 (James Coates), as documented in the Death and Burial Information list compiled by Whitley (2021; see Appendix C). The surviving portion of the minutes describes a deal between Morningstar Tabernacle No. 88 and Tabernacle No. 36, whereby Tabernacle No. 36 would contribute \$50 toward repairs on the Lodge building in exchange for ensuring that their members could be buried in Morningstar’s Cemetery (Morningstar Tabernacle No. 88 1910:143-145).

As mentioned in Section 4.3.3, from 1926 to 1931, the school for African American children in Gibson Grove was held in the Morningstar Tabernacle No. 88 Hall, which was rented out for \$5 per month (Clarke and McKinney 1976). Because of this, it is known that Moses Hall remained in use at least into the 1930s; it is not known when the Lodge ceased to meet, based on Jones’s oral history interviews with descendants of members. Membership decreased as children of members declined to join the organization or moved away, and few new members replaced them. Over time, encroaching suburban development, increased mobility, and growing opportunities outside benevolent societies led to loosening of community ties and decreased demand for the services the organization provided (Jones 2010:53).

Despite the evidence indicating an active Moses Order chapter in Gibson Grove, the 1931 Klinge map does not depict Moses Hall; rather, it shows George Scott’s parcel as 4 acres (the deed says 4.5 acres) [REDACTED], even though Edward E. Jones had purchased the land (minus the access road) in 1919 (Klinge 1931, 1941; MCDB PBR 282:401; Figure 41). This further highlights the potential for inaccurate information on the map series. The Morningstar Tabernacle No. 88 Lodge is subsequently labeled on the 1948 map, which also shows that Edward E. Jones’s parcel had been subdivided by this time (Klinge 1948; Figure 47). In 1959, the labels around Moses Hall remain unchanged (Klinge 1959; Figure 47).

Historic aerials from 1957 and 1963 show that the access road running east-west on the north side of the Morningstar Tabernacle No. 88 property has likely always served as a northern boundary for the property until the construction of I-495 (Maryland iMAP 2019; USDA 1957, 1963; Figures 48A to 49). The road provided access [REDACTED] to Moses Hall and several dwellings north of the Lodge prior to the construction of I-495. Figures 48B and 48D include parcel mapping from Figures 3A to 3C, showing features identified during the documentation phase of the project overlaid onto the 1957 aerial to illustrate how the extant features match with those shown on the historic aerial. The historic aerials also show the informal pathways that run horizontally and vertically through the Morningstar Tabernacle No. 88 property. These may have been footpaths from Moses Hall to dwellings nearby, or simply paths among the grave markers.

In 1962, the Capital Beltway (I-495) was constructed through the Cabin John area as a three-lane interstate in each direction, with shoulders along each side, a grass median, and an additional lane along the outer loop, which is the on-ramp from Cabin John Parkway (Havlik 2020:2). I-495 was later widened in 1992 to four lanes in each direction. Aerial imagery shows that the outside edge of I-495 was held and all widening occurred within the grassy median, which was replaced with additional travel lanes and a concrete traffic barrier (Havlik 2020:2).

As part of ROW acquisition for the construction of I-495, Moses Hall, the access road, and the cemetery were captured on plats and construction plans (Figure 50). The northernmost limit of interments shown on the 1961 plat coincides closely with burial depressions documented by the present study. The plat also depicts the access road leading to the Moses Hall and Cemetery [REDACTED] as well as the dwellings to the north (State Roads Commission 1961:Plats No. 23509 and 23511). The plat notes that Moses Hall was surrounded by scattered trees and underbrush, and the cemetery is represented by a dashed line south of the road, described as “graves among woods and underbrush.” Despite the apparent condition of the cemetery in 1961, burials continued at least through the 1970s; 1973 is the most recent date found recorded on a marker (for Allen White), and the local community’s list includes burials through 1977 (Whitley 2021; see Appendix C for the list of burials).

A gully on the property was noted on the 1960 as-built plan, along with Moses Hall and Cemetery (State Roads Commission 1960; Figures 51A and 51B).⁶ The head of the gully was noted east of Moses Hall, near the notation of scattered trees and underbrush. The gully was depicted as traveling east, into the woods. [REDACTED]

[REDACTED] This gully is still a part of the Morningstar Tabernacle No. 88 landscape today. It likely originated as natural drainage that deepened and enlarged as a result of erosion during the historic period. An artificial berm has been placed across the head of the gully, possibly with the intent to help prevent further erosion. This occurred prior to 2008 when the Boy Scouts installed wooden steps within the artificial berm during an Eagle Scout project. As noted within Section 2.2.1, the soils are classified as having a moderate hazard for erosion (Havlik 2020). Several trees have fallen into the gully more recently; one large tree lies across (and thus postdates the construction of) [REDACTED]

[REDACTED]. Although an exhaustive search was not completed, the surviving minutes do not appear to mention this landscape element or erosion.

In 1962, the State Roads Commission took 0.077 acre of land in the northwestern corner of the 1-acre parcel for construction of I-495 by a deed dated May 17, 1962; Robert J. Crawford and Snowden Dove, Trustees for Morningstar Tabernacle, were the grantees (MCDB CKW 3000:646-647). The 1961 SHA ROW report on the 0.077 acre of land notes: “There is also an old cemetery, but all improvements are situated so far away from the ROW line that they are not affected by the taking” (SHA 1961:8). The next year, in 1963, Edward and Irene Jones sold a small, 0.0488-acre

⁶ By definition, a gully is a trench cut into land by the erosion of a fast-moving stream of water. Gullies can be caused by a variety of conditions that destroy the natural vegetation that previously secured the soil: human action, fire, climatic change, or a powerful rainstorm (Encyclopedia Britannica 2021).

sliver of land for \$10 to the Morningstar Tabernacle No. 88. The land, which widened the access road, was described as being part of the 1885 parcel conveyed from Moore to Scott (MCDB CKW 3148:672). After I-495 was completed, the houses and outbuildings to the north of the Moses Order property were no longer extant. As noted previously in this section and seen on Figure 49, aerial imagery from the early 1960s confirms that the access road remained in place upon completion of the new highway, at which time Moses Hall and Cemetery would have been visible from I-495 (Nationwide Environmental Title Research, LLC [NETR] 1962, 1963, 1964).

As described in detail in Sections 4.4.2 and 4.4.3, it is unclear what happened to the Morningstar Tabernacle No. 88 Lodge building following the construction of I-495. The building is clearly visible in the 1962 aerial photograph, and appears to also be extant in the 1964 aerial photograph (NETR var.). Aerial photographs show that the Hall may have been at least partially standing in 1981

It has been widely reported that Moses Hall was destroyed by arson in the 1960s. However, research has been unable to locate documentation of a fire. Neither architectural materials nor the building's foundation shows any evidence of withstanding a fire.

The bamboo has been present for some time, although it is not known when it was planted. In a photograph from a 2008 *Capital Gazette* article, full-sized and thick-growing bamboo can be seen in the background (Donaghue 2008). By 2008, the abandoned cemetery had come to the attention of local residents;

A local Boy Scout helped to restore the pathway and improve pedestrian access to the cemetery for his Eagle Scout project (Donaghue 2008). There are no details about what exactly was done, but the wood-braced steps on the path that traverses the artificial berm may have been a part of the project.

4.4 Documentation Results

4.4.1 Cemetery

A total of 109 ranked features were recorded within the Morningstar Cemetery (Appendices D and E; Figures 3A to 3C). These include 72 features that represent 66 burials and 37 additional cemetery features that cannot be confidently associated with specific burials, but are likely burial related. Potential burials include any depression, burial marker, stone, or other object (or associated groupings of these features as a unit) within the archaeology survey area that may represent an individual interment. The number of potential burials does not represent the number of burials documented. Documented features include ten markers with inscriptions, eight of which contain dates (Table 7; Appendix D). Three of the inscribed markers are not in situ and, while those individuals are interred within the cemetery, the locations of their burials is unknown. The earliest recorded date for use of the cemetery is for James Coates, who was buried in Moses Hall on September 4, 1894 (see Appendix C). The earliest overall date on an inscription is 1892, the birth date for Wallace Mason (Feature 9). The latest date recorded on an inscription is 1973, as the death date of Allen White, who was buried at Morningstar on February 14, 1973 (Feature 8). The burial

of Lelia (nee Carter) Nickerson Newman on or shortly after March 21, 1977, is the last known interment in the cemetery (Whitley 2021, which can be found in Appendix C; see Burial #78).

The inscribed grave markers include both professionally carved examples and non-commercial examples. Instances of the latter include Feature 2, a thin concrete tablet with a rounded top, and an affixed metal plaque with an inscription. The name “James F. Cooper” is written in flowing script over a blocky print for the date of death. While the concrete tablet could be a local product made by almost anyone, the inscribed metal plaque is professional, and combining a professional plaque with a homemade marker was possibly a more economical option for a personalized and stylish grave marker than other options. This marker is not in situ; it is lying down inside a grave depression. It cannot be determined whether the marker is lying in the grave depression that it had originally marked, though it is likely. The carved white stone marker for Leroy Dove (Feature 4) is similar to military grave markers and includes a simple inscription of the name of the deceased, followed by birth and death dates. The carving and professional look of this marker make it similar to mass-produced markers. Feature 4 is not in-situ and is lying on the surface; as such, it cannot be determined if the location in which it has been mapped is where the burial is located.

There are three stones that belong to one family group. The Whites (Mary Frances [Feature 6], Rodney T. [Feature 5], and Allen [Feature 8]) are the same style of carved granite markers. According to the 1940 Federal Census, Mary Frances had ten children between the ages of 2 and 18 years old; Rodney T., Jr., was the oldest, and Allen was the fourth born and third son. [REDACTED]

[REDACTED] It is likely that other members of the family are buried at Morningstar Cemetery. Graves are located close to each other, though not in a tight grouping, in the southeast portion of the cemetery. The marker for Allen is a temporary metal marker, the sort that are placed by funeral homes at the time of the burial service. Also, a partially buried ceramic cup or vase is present near Allen White’s grave.

The last of the professionally produced gravestones to be discussed is that of Charles Jones (Feature 10), who died November 13, 1921. The marble stone is shaped similar to a military headstone. The inscription begins with “Father,” lists the shortened Chas, for Charles, his date of death, and age at death. The headstone is lying on the surface of the ground, with no indication of where it had once stood. This marker also has the look of a commercially produced product.

The informal or improvised inscribed burial markers found in the cemetery represent a wide range of techniques. There are two concrete markers with inscriptions. The marker for Lewis B and Jennie Burley (Feature 7) is a large concrete, slanted marker on a concrete base. The lettering is thin and not deeply incised; it may have been written with a stylus while the concrete was still wet. The lettering may have also been filled with a black or dark-colored pigment, which is still slightly visible in some letters. The Burleys’ stone is the only documented stone for two burials in the cemetery. The inscription includes the word remembrance, which appears to be spelled as “Rembevy.” The marker does not include birth or death dates for the Burleys, but Laura Virginia “Jennie” was born ca. 1866 and died February 7, 1926; her husband Lewis died September 3, 1920. This marker is not associated with a burial depression and appears to have been shifted off of the regular orientation of other nearby burials; therefore, it may no longer be marking the place in which the Burleys are interred.

A second concrete tablet with handwritten inscription is for Wallace Mason (Feature 9). The marker for Mason is a tall thin slab with a peaked top. The inscription includes the name, birth, and death dates with month and day. The spacing, alignment, and slope of the lettering indicate the inscription may have been made by family or friends. Both concrete markers were created in common grave marker shapes that are often carved from granite or marble, but reproduced here in concrete.

A red sandstone marker, partially buried in the southeast corner of the cemetery, is hand carved with the name Milton, but the last name is illegible; the name is followed by the date April 20, 1925 (Feature 17). There are two other similar red sandstone markers (Feature 1) in the vicinity of this one, which are likely related to one another based on material and proximity. The two features (Features 1 and 17) may be members of the same family, or could have been individuals that were interred at the same time.

The last inscribed stone identified in the cemetery is a slate marker with teal or green paint (Feature 18). The marker is placed at the west end of a deep depression in the long, westernmost line of visible burial depressions along the western end of the property. The slate is thin and tall; over time, it has shifted and is currently leaning so that the writing is facing the ground. There is a first line that is smeared and illegible, though it appears that it does represent text and may start with a capital "A," the second line is written in large block letters and reads "HARRIE." Note that "Harris" is a common name in the area.

Table 7. Inscribed Gravestones Identified at the Morningstar Cemetery.

Feature Number	Name(s)	Date(s)	Full Inscription	Notes
2	James F Cooper	March 20, 1943	-	Concrete tablet stone with rounded top. Metal plaque attached to concrete with name in script and date in block letters. Stone is sitting on the surface, in a burial depression; rounded end is at the east.
4	Leroy Dove	Oct 20 1910, Mar 4 1940	Line 1: Leroy Dove Line 2: Oct 20 1910 Line 3: Mar 4 1940	Marker has professional looking carving for inscription. Stone is broken in two and flat on the ground. No associated depression.
5	Rodney T White	1924-1966	Line 1: Rodney T. White Line 2: 1924-1966	Formal, granite gravestone with inscription.
6	Mary Frances White	1900-1969	Line 1: Mary Frances White Line 2: 1900-1969	Formal, granite gravestone with inscription.
7	Lewis B Burley and Jennie Burley	-	Line 1: In loving Rembevy Line 2: of the Burley Family Line 3: Lewis B Burley Line 4: Father Line 5: Jennie Burley Line 6: Mother	Concrete gravestone with carved inscription, there is evidence that the inscription may have been painted or filled at some time by a black substance.

Feature Number	Name(s)	Date(s)	Full Inscription	Notes
8	Allen White	1925-1973	Line 1: Allen White Line 2: 1925-1973	A thin metal temporary grave marker is also present.
9	Wallace Mason	1892, 1931	Line 1: Wallace Line 2: born May 1892 Line 3: died Sept 1931	Concrete tablet with handwritten inscription, appears to have been inscribed when the concrete was wet, not carved after it had hardened.
10	Chas Jones	Nov. 13, 1921	FATHER Chas Jones Nov. 13, 1921 Age 51 years	Stone is professionally cut and carved. Stone is intact, but lying on its back on the ground. No indication of where the stone was originally located.
17	Milton___(illegible)	April 20 1925	Line 1: Milton___(illegible) Line 2: April 20 1925	Red sandstone, hand inscribed, partially illegible. The stone is partially buried, if cleaned off, more information may be visible.
18	Harrie	-	Line 1: <i>Illegible</i> Line 2: HARRIE	Slate leaning toward the west, painted with teal paint. Illegible writing on top, then in all capital letters, "HARRIE".

Grave depressions and other potential burials are organized either in rows, or in groups with more random placement (Figures 53 and 54). All recognizable burials are oriented generally east/west, as expected (Figures 3A to 3C). The few depressions that include markers indicate that the dead were interred facing east.

Ten fiberglass/plastic strips (Features 86 through 95), generally standing about 1.5 feet high, are laid out in a row. According to Ms. Charlotte Troup Leighton, a nearby property owner, the fiberglass/plastic strips have been there for at least 15 years. It is unclear if they are placed to represent burials or some other aspect of the cemetery. Only one of the fiberglass/plastic strips is associated with an embedded stone marker (Feature 87 Appendix E). The fiberglass strips are aligned within the general layout of other burials in the cemetery, creating a row that runs generally north to south. The spacing between the fiberglass strips varies; some are spaced with up to 10 feet between them, while some are placed adjacent to each other, in spacing that could represent burials placed next to each other. There are no other burials within the row that are created by the fiberglass strips, but there are rows of burials to the east and west of them.

The markers may have been placed based on information from family members in locations where wooden markers were once visible, but they have since decayed; or in place of some other marker that has since been removed.

As discussed within Section 3.2, features within the cemetery that were viewed as related to burials were documented and mapped as they were encountered on the ground. Those features were analyzed using specific criteria (Table 8) to determine if they represent Tier 1, which is likely to be related to a burial; Tier 2, which is probably related to a burial; Tier 3, which is possibly related to a burial; or Tier 4, in which case a relation to a burial is undetermined. The criteria for the ranking system include 1) presence of a grave shaft-shaped burial depression; 2) a tabular grave marker, firmly embedded in the ground; 3) the feature or grave marker is oriented east/west; and 4) the marker lines up with other features determined to represent burials. The criteria were designed to provide a ranking of the feature(s) to determine if they represented a burial or were burial-related. Tier 1 features are those that have either a burial depression and/or satisfy the other three criteria, Tier 2 features meet two of the criteria, Tier 3 features match only one criterion, and Tier 4 features do not meet any criteria. The ranking system was used to analyze each of the 109 features individually and to systematically organize and sort the features. This ranking system aided in mapping features and later in burial identification. Note that the discussion below defines the specific features identified within each tier; however, in some instances two features combine to constitute one burial. For example, Features 14 (headstone) and 41 (footstone) collectively represent a single burial (Burial 10).

Table 8. Feature Rank Criteria and Total Features.

Rank	Category	Criteria	Number of Features
1	Likely Burial Related	Either a grave shaft-shaped depression is present OR it has all of the following three characteristics: a tabular marker, firmly embedded in the ground; the marker is oriented with the larger, smooth side(s) facing east/west; the marker lines up with other burials in the row.	63
2	Probable Burial Related	Feature has at least two of the characteristics listed above.	9
3	Possible Burial Related	Feature has one of the characteristics listed above.	18
4	Cannot be determined	Feature does not meet any of the characteristics listed above.	19
Total:			109

Sixty-three Tier 1 features were identified during the survey, with 61 of those representing features related to burials (Table 8). Many of the features categorized as Tier 1 include burial depressions; any feature that included a depression that was clear on the surface was ranked as Tier 1. Some grave depressions were accompanied by inscribed stones (and in one case, painted), unmarked fieldstone markers embedded in the ground, metal temporary markers provided by funeral homes, or planted flowers (Appendices D and E). Tier 1 features that do not include burial depressions include tabular stones embedded in the ground, which line up with other burials (depressions and features or groups of features later determined to represent a burial) and were oriented east/west. The two Tier 1 features that were not assigned as burials are Features 31 and 87. Feature 31 is a broken chisel-shaped stone that once stood tall but has since broken into at least three fragments. The placement of this stone at the head of the cluster of burials in the southeast corner of the cemetery suggests that it was a marker for the plot, rather than an individual marker for an interment. Feature 87 is the one fiberglass/plastic strip marker that was assigned to Tier 1 because it is associated with an embedded fieldstone marker. Feature 87 roughly lines up with Burials 16

and 17, but it is spaced so that it does not appear to be related to the cluster of burials. As such, even though Feature 87 qualifies as a Tier 1 feature, it cannot be definitively assigned as a burial based on the unclear association between Feature 87 and the grouped burials to the south that appear to line up, but may only do so coincidentally.

An additional nine features are highly likely to be related to interments (Tier 2; Table 3). Many are tabular stones firmly embedded in the ground, but not associated with a grave depression and/or a depression that may be slightly sunken or is out of the east/west alignment. The third group of 18 features represents those that may be related to burials (Tier 3). This group includes features that are either in line with burial depressions, or features that are oriented east/west, but not both. The last group includes 19 Tier 4 features that cannot be determined to represent burials. Tier 4 features include three inscribed markers (Features 4, 7, and 10) that undoubtedly marked interments within in cemetery, but the markers have been moved or are lying on the surface, instead of embedded in the ground. Therefore, there is no evidence of where these markers were originally placed within the landscape. All but one of the fiberglass/plastic strips are included in this tier; while they indeed create a row of features, only one meets the criteria to be considered a Tier 1 feature. It is not labeled as a burial because although it lines up with the other fiberglass/plastic strips, it is unclear if they represent interments or some other cemetery feature.

Regardless of the tiered system used to record cemetery features for archaeological purposes, it is quite possible or even likely that more graves are present than are here recorded. In parts of the cemetery where graves are characterized by well-formed depressions, there are many instances where adjacent areas do not contain grave depressions. Nevertheless, graves may well be present in these areas. Analysis of the 1957 aerial indicates that there are several areas of negative space within the cemetery parcel, meaning areas with a lack of potential burials (Figures 48A to 48D). These include the area surrounding the former Moses Hall, particularly a cleared “yard” area west of the hall building (this cleared yard is visible on aerial photographs and is discussed in more detail in the section on land use below); the area of the unimproved entrance road located along the northern border of the parcel; and the area immediately bordering the gully. It is possible that there are unused grave plots throughout the cemetery, but it is also possible that many of the locations that lack markers or grave depressions do, in fact, contain interments.

The result of analysis using the tier system in combination with a review of mapping resulted in the identification of 66 burial locations within the cemetery (Table 9). Burials were determined using several avenues of identification. First, all features that include burial depressions (n=35) were marked as burials. Other Tier 1 features were found to represent an interment individually, without burial depressions (n=16), based on mapping, their rankings, and the cemetery layout. Next, all remaining Tier 1 features were examined to identify any pairs of features that may constitute two-part burial markers (headstone/footstone); this step was initiated based on prior experience at Morningstar Cemetery. Once familiar with the layout of stones, some appeared to be placed the appropriate distance apart to represent two parts of one interment marker (n=4; Burials 10, 17, 18, and 19). Three burials (Burials 10, 19, and 20) were identified from the combination of a Tier 1 plus a Tier 2 feature. Several Tier 2 features were determined to represent burials individually (n=6; Burials 23, 25 to 27, 30, and 38); and two Tier 3 features (Burials 21 and 35) were deemed to represent burials based on proximity and placement to other burials. The identification of 66 burials is based only on what is visible on the ground surface; one can infer

from organized rows of burials that there are likely many other unidentifiable burials within the cemetery.

Table 9. Burial List with Components and Description.

Burial No.	Feature(s) No.	Tier No.	Description of Burial
1	1	1	Sandstone head and footstone combination, documented together.
2	2	1	Burial depression and marker, though marker is lying within depression.
3	5	1	Grave marker.
4	6	1	Grave marker and burial depression.
5	8	1	Grave marker and burial depression.
6	9	1	Grave marker and burial depression.
7	11	1	Grave marker and burial depression.
8	12	1	Grave marker and burial depression.
9	14	1	Headstone.
10	41	1	Footstone.
	15	2	Headstone.
11	42	1	Footstone.
	16	1	Grave marker and burial depression.
12	17	1	Grave marker and burial depression.
13	18	1	Grave marker and burial depression.
14	19	1	Burial depression.
15	21	1	Grave marker.
16	22	1	Headstone.
17	24	1	Footstone.
	23	1	Headstone.
18	25	1	Footstone.
	26	1	Headstone.
19	29	2	Footstone.
	27	1	Headstone.
20	30	1	Footstone.
	28	2	Footstone only (based on adjacent burials).
21	32	3	Grave marker.
22	33	1	Grave marker.
23	34	2	Grave marker.
24	35	1	Grave marker.
25	36	2	Grave marker.
26	37	2	Grave marker.
27	38	2	Grave marker.
28	39	1	Grave marker.
29	40	1	Grave marker and burial depression.
30	43	2	Grave marker and burial depression.
31	45	1	Grave marker and burial depression.
32	46	1	Grave marker, may represent footstone.
33	52	1	Grave marker.
34	56	1	Grave marker.
35	57	3	No depression, only glass bottle.
36	58	1	Grave marker.
37	59	1	Headstone and footstone combination.
38	60	2	Grave marker.
39	61	1	Grave marker.
40	63	1	Burial depression.

Burial No.	Feature(s) No.	Tier No.	Description of Burial
41	64	1	Burial depression.
42	65	1	Burial depression.
43	66	1	Burial depression.
44	67	1	Burial depression.
45	68	1	Burial depression.
46	69	1	Burial depression.
47	70	1	Burial depression.
48	71	1	Burial depression.
49	72	1	Burial depression.
50	73	1	Burial depression.
51	74	1	Burial depression.
52	75	1	Burial depression.
53	76	1	Burial depression.
54	77	1	Burial depression.
55	78	1	Burial depression.
56	79	1	Burial depression.
57	80	1	Burial depression.
58	81	1	Burial depression.
59	82	1	Burial depression.
60	83	1	Burial depression.
61	84	1	Burial depression.
62	85	1	Burial depression.
63	96	1	Burial depression.
64	103	1	Grave marker.
65	104	1	Grave marker.
66	105	1	Grave marker.

A total of 37 features were identified within the archaeology survey area that could not be confidently associated with burials but are related to the cemetery, the majority of which are identified within Tier 4. These included stone markers that were not in situ (n=5), fragments of stone markers not in situ (n=6), fiberglass/plastic strips (n=10), unidentifiable fieldstone fragments (n=8), quartz fragments (n=2), clusters of brick and glass (n=3), a possible depression (n=1), and stone fragments with cement (n=2). While the stone marker fragments are likely related to former headstones and footstones, the material was scattered across the surface and could not be associated with any specific burials. The quartz found at the site is likely a mix of natural and marker related. As stated previously, it is unclear if the fiberglass/plastic strips represent burials or some other aspect of the cemetery. The clusters of brick and glass, as well as the cement/stone fragments, are most likely related to the demolition of Moses Hall. Feature 98 is noted as a possible depression located within the MDOT SHA ROW. It is unclear whether this is a burial; however, it does align with several others within the cemetery. Two Tier 1 features were not designated as burials; Feature 31 appears to represent a group burial marker, and Feature 87 does not line up with other burials to confidently associate it with an interment.

The Moses Hall foundation, while present within the archaeology survey area, was not included within the tiered ranking system developed to exclusively identify burials or possible burial-related features. Other items related to the Hall, but not included in the burial feature list, include a portion of shingled roof, an electric stove, and other architectural debris. The spread of debris surrounding

the Hall is likely the result of the demolition of the building, and therefore not related directly to burials. Additional discussion regarding the Moses Hall foundation is presented below in Section 4.4.3.

From the features identified as Tiers 1 through 3 (n=90), 65 features included identifiable materials used for markers. The most common material is fieldstone (n=26), followed by sandstone (n=17), fiberglass/plastic (n=10), granite (n=5), concrete (n=2), metal (n=2), glass (n=1), slate (n=1), and quartz (n=1). A wide variety of grave marker materials and types is common to the gravesites of enslaved, formerly enslaved, and free African Americans throughout the Middle Atlantic. Lynn Rainville described a twentieth-century African American cemetery in Virginia that included the use of temporary metal funeral home markers, an inscribed concrete marker with a footstone, and a linear group of fieldstones and quartz grave markers (Rainville 2014). Rainville also notes the use of PVC tubing to create crosses in an overgrown African American cemetery in Albemarle County, Virginia. Brooks (2011) notes the use of similar materials for burial markers, including uninscribed stones, temporary metal nameplates, wooden posts, and plants in coastal South Carolina. The cemeteries described by Rainville (2014) and Brooks (2011) are found near historic African American communities, often on hilltops or near water, and the vegetation is more natural and less planned. “It appears that no attempt was ever made to create an artificial landscape, mimicking the park-like setting of traditional European style cemetery” (Brooks 2011:180). The more natural landscape of the African American cemetery includes mature trees among the burials, and open patches of dirt that have not been planted with grass or other ground cover. The burials are varied in their physical layout: some are grouped erratically, and oriented in different directions; some are more organized, but not in rows; and family burial groupings are common. The more organized lines of burials at Morningstar Cemetery are likely a result of the Christian influence within the Moses Lodge’s membership and are similar to those discussed by Rainville. The descriptions given by Rainville and Brooks of African American cemeteries are similar to the materials and layout of the Morningstar Cemetery.

Based on the cases described in Rainville (2014) and Brooks (2011), earlier and community or family burial grounds exhibit more random burial groupings, with families often loosely grouped. Organized rows of burials are more often a characteristic of church cemeteries. Rainville (2014) notes that the use of uninscribed fieldstones for burial markers is common in nineteenth-century slave cemeteries. The markers were uninscribed for various reasons; first, it was illegal in most places to teach enslaved people to read or write, and as such, many could not do either. Even if there were individuals that could read or write, inscribing a gravestone would broadcast that to the general public, and could provoke retribution. Also, slave owners likely did not provide materials for burying the deceased or marking graves, so naturally occurring stone was used.

The use of uninscribed fieldstone markers at Morningstar Cemetery may indicate that these are older burials. The community members at the time could have been continuing cultural traditions that had been adopted when they themselves or their immediate family members were enslaved. Practically, fieldstone markers were an economical choice, and during the period after emancipation when the cemetery was founded, there may not have been enough money to purchase any other materials. Concrete is a common material for grave markers, likely because it is inexpensive and it can be poured into any shape and carved or incised. Cast concrete could be used

to make attractive, standardized forms; some were enhanced with marbles and others with decorative objects (Baugher and Veit 2014).

The three concrete grave markers found in Morningstar Cemetery (Features 2, 7, and 9) are all cast in standardized, recognizable gravestone forms. Each of the gravestones, if erected around the time of burial, represent three different decades. The Burleys' joint marker was made sometime during or after the 1920s; Lewis died in 1920, while his wife, Jennie, died in 1926. Wallace Mason died in 1931, and James Cooper died in 1943. Each of the concrete grave markers is slightly different; the Burleys' stone is for both the husband and wife, and the lettering is even and neat. The marker for Mason, while it is shaped in a common form, the lettering is unevenly spaced, some lines run out of space at the end, and the lettering is more amateur. The marker for Cooper is remarkable for the metal plaque that is affixed to it which holds the inscription. The use of concrete for markers in Morningstar Cemetery does not follow any set pattern; it was likely chosen as a durable, economical option. The concrete used to construct the markers appears to be similar in color; the Burleys' marker does not contain as much aggregate as the other two. The Mason and Cooper markers both contain visible rounded pebbles on the surface. Temporary metal nameplates, the type that are typically provided by funeral homes, are also common to the African American cemeteries documented by researchers. There are three metal nameplates of this type in Morningstar Cemetery: two are associated with otherwise unmarked burial depressions adjacent to each other (Features 11 and 12), while the last is at the grave of Allen White (Feature 8). The use of these temporary metal nameplates in place of permanent markers may be due to economic reasons. In the case of Allen White, the temporary marker may have never been removed after the arrival of the permanent stone memorial. These temporary markers were provided by the undertaker or funeral home at the time of the interment. The use of wooden burial markers is noted throughout much of the research on African American burial grounds; in some areas, depending on the climate and material used, the marker may survive for an extended period of time, but in a place like Morningstar Cemetery, any wooden markers once present would have likely decayed away.

The use of wooden or other organic markers that have since decayed may help to explain the high concentration of unmarked grave depressions in Morningstar Cemetery. Unmarked grave depressions are often one of the signs that Rainville (2014) uses to determine if she is indeed in an abandoned cemetery. Burial subsidence is caused when the soil replaced over the coffin or burial naturally settles and compacts; this process is affected by rainfall, water table levels, soil type, and topography. Burials in clayey soil may require several rounds of soil addition until the excavation fully settles. The burials at Morningstar, based on the soil conditions, placement on the hillslope, and vegetation may have required a significant amount of time and energy to maintain. Grave subsidence and maintenance of this issue is an important subject for cemeteries and funeral homes to manage, so much so that many include a description of the natural process of subsidence and maintenance plans on their websites. The additional effort of monitoring and filling in grave depressions is easily performed in cemeteries with permanent staff, but those that operate on a volunteer basis or without dedicated maintenance workers would vary in the commitment to the maintenance of graves.

The information we have from the limited minutes book for the Moses Hall from 1904 to 1914 does not detail any of the day-to-day operations of maintaining the cemetery. This may mean that

maintenance of burials was left to the deceased's family or friends. Since it is not known who is buried where in the cemetery, the long row of subsided burials in the west end of the cemetery could be more a function of historical timeframe; these may represent older burials that subsided over time and were left as they were. While there is a concentrated row of subsided burials in the west end of the cemetery, similar grave depressions are present throughout the cemetery, with the exception of the northern portion occupied by the road leading to Moses Hall and the area directly bordering the hall. The individual burial depressions may reflect the age of the interments and the use of concrete vaults, rather than, or in addition to, wooden caskets. Later burials may have used burial vaults or liners that prevented deep subsidence of grave soil, and also protected caskets from being crushed from the weight of soil.

Based on the list compiled by Whitley (2021), there are 77 burials in the Morningstar Cemetery that can be confirmed through official death certificates, newspaper death notices or obituaries, and references within the minutes book (Appendix C). An additional six names of those buried in the cemetery were provided in oral histories of the community, but have not been confirmed yet through other means. The confirmed burials range from 1894 (James Coates) through 1977 (Lelia [nee Carter] Nickerson Newman), a burial period of 83 years (Table 10). The confirmation of burials at the cemetery is dependent on both consistency of reporting and access to the records. According to the Maryland State Archives website (<http://guide.msa.maryland.gov>) the Maryland General Assembly passed a law in 1898 requiring the recordation of deaths in the 23 counties of Maryland. Compliance with the law was slow, and as late as 1914, the Board of Health was still working to increase compliance, meaning that some deaths were unrecorded. The period of time before 1914 coincides with a low number of confirmed burials for Morningstar Cemetery, though five of the ten confirmed burials during that period were recorded with death records. Confirmed burials in the cemetery increase starting in the 1920s through the 1940s, and then level out for the last three decades that the cemetery was in use. Some types of burials may not have been regularly reported, such as babies and young children. The youngest person known to be buried at Morningstar Cemetery is, according to Whitley's list, seven-year-old Clarence Edward Gibbs, Jr.; Clarence died in Cabin John in 1947. In the oral histories collected by Jones (2010), Vera Johnson remembers that she has three brothers that were buried at the cemetery as babies; she also remembers that they were not given funerals.

Table 10. Confirmed Burials by Decade.

Decade	Number of Confirmed Burials
1890	2
1900	4
1910	4
1920	10
1930	17
1940	18
1950	7
1960	8
1970	7
Total:	77

Features identified within the lawn area represent architectural debris, naturally exposed stone, or general refuse, and are not directly related to interments. [REDACTED]

[REDACTED] Uninscribed fieldstone markers, a feature that is often related to older, even antebellum, African American burials. [REDACTED]

[REDACTED] The dates range from 1920 (Lewis Burley) to 1973 (Allen White) and represent eight burials, including the joint marker for Lewis and Jennie Burley. [REDACTED], there are visible rows, but there is much more empty space between them. That may be a result of the involvement at later burials of funeral homes that provided expertise in burials and cemetery maintenance.

Later burials on the hillslope may have also used burial vaults or liners, which not only prevent deep subsidence of grave soil, but also protect caskets from being crushed from the weight of soil. However, the use of these at Morningstar Cemetery appears limited, and would likely only be associated with funeral home-assisted burials and marked burials. Though there are fewer grave depressions on the hillside, they are spaced in a way that suggests that there are burials between the depressions, indicating that many of the burials were refilled and properly maintained, or used burial vaults. The first concrete burial vaults were made in the United States in 1880, and their use expanded since then; in fact, many cemeteries require vaults or liners to be used today. Maryland law does not require the use of a vault for burial, and it would have been an extra expense, which may explain some burial depressions still located on the hillside. The possible family plot in the southwest corner of the cemetery includes at least five burials and what may have been a plot marker. Several burial features match, in placement and distance, the dimensions expected for headstone/footstone combinations. The stones are all small, tabular, dark grey fieldstone. The possible plot marker (Feature 31) was once a tall, chisel-shaped stone that has since broken into three pieces. It is located at the head of the small plot, in the center. A similar, but not as clear, concentration of fieldstones is located west of this plot, but there are not enough stones to determine if the burials are similarly associated. Sadie Harris (Jones 2010) recalls that her relatives were buried in what was known as Harris row. Ms. Harris lists her relatives buried at the cemetery as her two paternal grandparents, both parents, and at least one brother. The placement of the gravestones for the White family further confirms that not all families were buried in plots; the markers for Mary Frances and her sons, Rodney and Allen, are close, but Rodney is buried further down the slope, despite being the earliest burial of the three. This likely represents variance in the sale of individual burial plots to given families, and whether an adjacent grave plot had been sold to others or was available for sale to a given family.

It is clear that although documentation has identified 66 interments within the cemetery (Table 9), there are likely more that cannot be conclusively identified from the surface. So far, based on archival evidence, there are at least 77 burials confirmed in Morningstar Cemetery. It is likely that [REDACTED] the older portion of the cemetery, had been filled or nearly filled before interments were begun down the slope. Also, though there are areas down the slope that appear to

be vacant, the layout of identified burials [REDACTED]
[REDACTED]

Other natural and man-made structures within the archaeology survey area that were documented include the footpath around the hall and the gully east of the hall. The footpath, a modern non-historic path, follows the dirt road [REDACTED] that once led to the hall and beyond. The footpath then veers south to follow along the top of a gully (the former unimproved road, in contrast, followed an alignment to the north of Moses Hall). The terrain around the path consists of spoils piles of unknown origin. The soil at the surface of the spoils piles is a lighter sandy silt loam with inclusions of pebbles and channers. There are many fragments of asphalt lying on the surface of the piles. The soil piles were placed at the top of the natural gully at the eastern edge of the cemetery parcel and at the north and south boundary, and continue downslope. The gully itself appears to be a natural part of the topography, [REDACTED]
[REDACTED]

The MDOT SHA ROW portion of the archaeology survey area can be separated into two areas: in the east, the ROW has been disturbed by construction activities related to I-495, while in the west, a smaller portion of the ROW has been less impacted by construction and appears to be relatively intact. The eastern disturbed portion has been subjected to grading and filling, and construction of a drainage ditch. No burials or features were identified in this area. The western portion is elevated relative to the highway, which traverses a cut section through this area, and the ground surface is level with that inside of the fence. While some disturbance related to highway construction is likely in this area, it appears that it may have been restricted in nature, without widespread grading or grubbing. A possible grave depression, though slight and not as noticeable as others, may indicate that there is at least one potential burial within the ROW (Feature 98). The unimproved road remains as the path that allows access to the Cemetery [REDACTED]. Burials would not be expected to be present north and east of the road based on available evidence, including the 1961 plat (Figure 46).

One artifact was observed and turned over to the Friends of Moses Hall for safekeeping during the project. A metal burial container handle was located on the ground surface in the western portion of the cemetery (Figures 3D, 55, and 56). The handle is a bail handle type initially manufactured in England and, later, in the United States (Springate 2015:17-18). Similar handles have been recovered from North American burial contexts as early as 1854, and were available in hardware catalogs through the first decades of the twentieth century. The handle would have commonly been attached to either side of a casket or coffin. They were generally left on the burial container for the internment. The handle was likely uncovered during excavation for an adjacent burial, or one that was placed on top of an earlier internment. Another possibility is that it was brought to the surface from the excavation of an animal burrow. Fox dens can be up to 8 feet deep, while groundhog burrows can reach 6 feet in depth. Based on the date of use for this type of handle, and that it was recovered in the likely older section of the cemetery, it may have been from an early burial at the cemetery, though it is impossible to know the exact location of the original burial.



Figure 55: Metal bail-type burial container handle recovered from ground surface in Morningstar Cemetery (Front). Credit: Courtesy of the photographer, Charlotte Troup Leighton.



Figure 56: Metal bail-type burial container handle recovered from ground surface in Morningstar Cemetery (Back). Credit: Courtesy of the photographer, Charlotte Troup Leighton.

4.4.2 Land Use

Historic aerial photographs indicate that much of the northern portion of the archaeology survey area (the area formerly covered with bamboo) was occupied by Moses Hall, the road leading to the Lodge, and what appears to be a yard or parking area adjacent to the west wall of the Moses Hall building. It is possible that parts of the cemetery where burials do not appear to be present reflect the presence of the boundary road and the yard area west of Moses Hall. This area would not have been used for interment while the Hall was operating, and may have also served as a schoolyard when the hall was utilized as a school.

The construction of I-495 appears to have only affected the marginal portions of the archaeology survey area. The MDOT SHA ROW followed the edge of the unimproved road that led past Moses Hall westward [REDACTED]. The 1949 and 1957 aerial photographs illustrate this land use. They show that the area immediately to the west of the lodge building had been cleared as a yard area. The unimproved entrance road is also apparent, [REDACTED].

[REDACTED] The yard area may initially have served as a space for outdoor events or a play yard when the hall functioned as a school from 1926 to 1931. Eventually, it may have been a convenient place to park vehicles, and the photograph of Moses Hall ca. 1961 (Figure 57) shows an entrance in the west façade, suggesting the yard area would have been kept clear for access to the building and making it a natural location for activities associated with the hall. No features recorded at this location suggest burials may exist within the open yard area.

The portion of the cemetery parcel to the west of the cleared yard appears to be vegetated; the area to the east of Moses Hall also appears to be brush covered, and a possible footpath can be seen crossing the cemetery parcel from the northwest to the southeast. The yard area is still apparent in 1962, when construction of the beltway was ongoing. The vegetation cover on the property seems to have become denser by this time.

4.4.3 Moses Hall

The foundation of Moses Hall measures approximately 17 feet by 34 feet (Figures 3A to 3C). Only the east and south foundation walls are visible aboveground. The east wall is constructed of stacked fieldstone, but the south wall is constructed of concrete block that does not extend completely to the east wall (Figures 14 and 57). Probing of the west and north walls suggests the presence of buried foundation materials, most likely fieldstone. Brick rubble and a terra cotta flue liner lie near the southeast corner of the foundation, indicating the former presence of a chimney. Centered north of the concrete block south wall are more stacked fieldstones, possibly a remnant foundation. Opposite these fieldstones, along the interior of the east foundation wall is a stub of fieldstone that may represent an additional segment of the foundation wall. The concrete blocks in the south wall are of multiple types, including blocks with circular holes and others with square holes of varying sizes. Irregularities in the block suggest the use of an on-site mold, but the variety of forms indicates they may have been obtained from various sources. Concrete block was in common use from about 1905 onward, making it difficult to definitively date the block or identify this portion of the foundation as an addition or repair. Asbestos-cement material is scattered across the area of

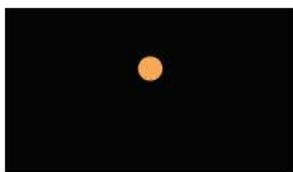


Figure 57
1961 Photograph of the Moses Lodge, from MDOT SHA
Right-of-Way, File No. 48288, Peter and Dorcas Jones Property

Documentation of the Morningstar Tabernacle No. 88
Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study and
Remote Sensing of the Morningstar Cemetery and the Gibson Grove A.M.E. Zion Church (M:29:39)
Montgomery County, Maryland

the concrete block foundation. Due to its fragmented condition, it is not apparent if the asbestos-cement was used as roofing or siding. Asbestos-cement products came into common use in the 1930s and 1940s, but production ceased when it was banned in 1973. A portion of the former roof's gabled peak, clad with asphalt composition shingles, lies northeast of the foundation (Figures 58 and 59). The segment includes a mix of hewn and sawn lumber, assembled with both cut and wire nails, which are materials consistent with the estimated construction date of 1887-1904. Other scattered objects related to the structure include electrical wiring and fixtures, a fuse box, and downspouts (Figure 60).

Moses Hall is described as a simple two-story frame building on Plat 23509 (State Roads Commission 1961). A 1961 photograph of the hall taken as part of a state-initiated appraisal for a nearby property confirms the building was two stories in height; it shows the west elevation of the Moses Hall, taken from the approximate location of the access road leading past the hall [REDACTED]

[REDACTED] The building has light-colored walls, presumably of wood clapboard and consistent with the descriptions of whitewashing in the Morningstar organization's meeting minutes. The west elevation is four bays at the first floor; an entrance is located in the second bay from the south, adjoining a rectangular window in the south bay. Two similar, widely spaced windows occupy the first floor's north bays. Windows at the second story are aligned with the first floor's three north bays. The door and windows are painted a darker color than the walls. There appear to be no openings on the building's north elevation, facing the road. A chimney is visible near the south end of the building where it pierces the roof slope along the west elevation. This location aligns with the 1957 aerial photograph and the chimney remnants on the site.

In historical aerial images, Moses Hall appears longer than the current (2021) extant foundation, as mapped by the Total Station. It is not clear if this is due to the ca.-1910 "enlargement" by Charles Harris described in meeting minutes, or a different addition. No foundation segments are visible aboveground from this southern portion of the building, indicating it may have been on a pier foundation or simply is not visible, as with other segments of the foundation (USDA 1957; Figures 48A to 48D).

Based on these aerials, the 1961 photograph, and the physical remains of the foundation, there appear to have been two identifiable additions to Moses Hall. The evidence suggests an original building constructed on a fieldstone foundation. This building would have encompassed the two northern bays (including the chimney) depicted in the photograph of the west elevation, resulting in a symmetrical appearance. The entrance bay appears to comprise a later addition, aligning with the concrete block foundation. A second addition, not apparent on the ground onsite, encompassed the south end of the building, including the south window bay on the west elevation.

It is unclear what happened to the Morningstar Tabernacle No. 88 Moses Hall following the construction of I-495. The building is clearly visible in the 1962 aerial photograph and appears to also be extant in the 1964 aerial photograph. Subsequent aerials show extensive vegetation or are too pixelated to determine conclusively if the building was still intact (NETR var.). [REDACTED]

[REDACTED] ones (2010:53) notes



Figure 58: View of a Moses Hall roof portion lying north of the foundation, facing south (January 2021).



Figure 59: Close-up of a roof section, showing asphalt shingles (January 2021).



Figure 60. Scattered objects related to the Moses Hall structure, looking northwest (December 2021).

that Moses Hall was destroyed by arson in the 1960s, but research was not able to locate definitive proof of a fire. Bricks, a portion of the roof, and other scattered architectural materials, along with Moses Hall's foundation, are the only things remaining at the site by the cemetery; no evidence of burning is visible on any of the architectural remains of the structure, and no burned material was found on the surface. A search of newspapers and other records did not produce any record of a fire. However, an article from the *Village News* (1985) says that the Moses Hall building was torn down [REDACTED] although it is unclear if the building may have been extensively dilapidated or damaged by fire or otherwise prior to any demolition. Given the photographic and archaeological evidence, this is the most plausible explanation for Moses Hall's current state.

Similar fraternal buildings in Maryland include the Union of Brothers and Sisters Ford's Asbury Lodge in White Marsh (Asbury Lodge; Maryland Inventory of Historic Places [MIHP] #BA-358); St. Jacob's Lodge No. 28 in Bacontown (St. Jacob's Lodge; MIHP #AA-894), which has a cemetery; Abraham Hall in Beltsville (MIHP #PG:62-7); and the Mt. Tabor Good Samaritan Lodge No. 59 in Crownsville (Mt. Tabor; MIHP #AA-775), which also includes a cemetery (Bird and Darsie 2003; Bruder 2003; Ware 1992, 2001). All four of these lodges are extant, two-story, wood frame buildings, constructed between 1874 (Asbury Lodge) and 1909 (St. Jacob's Lodge); all have gable roofs, but only Asbury Lodge has a side-gable roof. St. Jacob's Lodge has only two openings on its main façade; Mt. Tabor's facade has windows flanking its main entrance, and a single window on the second floor. Abraham Hall is the most elaborate of the five, featuring a symmetrical façade with a set of double-doors as the main entrance, which is flanked by a full-size window to either side; the second-story windows are directly above those on the first floor. The same basic, simple design of the Morningstar Tabernacle No. 88 Moses Hall is found elsewhere throughout the south, including buildings in Georgia and Tennessee (Manning 2020:3).

4.5 Archaeological Monitoring and Modern Material Removal

The Morningstar Cemetery was overgrown with underbrush and bamboo when the local community became involved in the maintenance of the property. Graves were visible in the southern part of the parcel, thick bamboo made it impossible to determine what lay along the MDOT SHA ROW to the north. Cleanup events organized by the community began as early as 2008 (Donaghue 2008) and continue to the present day. To facilitate the documentation of the Morningstar Cemetery, MDOT SHA proposed to cut and remove the standing bamboo and remove any previously cut bamboo lying on the surface within the parcel and the ROW. The work was performed in the presence of an archaeological monitor to ensure that no historic resources were damaged by the work. When the bamboo removal was complete, additional features and other Moses Lodge-related features were documented. Part of the bamboo removal and cleanup revealed modern trash on the parcel that was removed in agreement with the community (Appendix F). Some items were marked for removal by the community, but were not taken off the property during this effort because they were deemed to be potentially related to the use of Moses Hall.

4.6 Morningstar Cemetery Typology Discussion

Although the Morningstar Cemetery has been compared to the Upland South cemetery type, as defined by Jeane (1978, 1989) and referenced by others, it is not. Rotenstein (2018) describes the

no-longer-extant River Road Moses Cemetery in Bethesda, Maryland, as an example of an Upland South cemetery, based on a limited number of the characteristics of the type (and in the case of River Road Moses, there is no aboveground physical evidence of the cemetery, nor are there any photographs of the cemetery that were available to Rotenstein). The Upland South folk cemetery is defined as a complex of cultural traits associated with white Anglo-Saxon communities (Jeane 1989:120), and, as such, is distinct from the vernacular African American cemetery. The Upland South cemetery type shares a number of characteristics common to many vernacular types of graveyards, particularly those located in the Piedmont. These particular types of cemeteries are often found on hilltops and tend to be small, with many rural cemeteries meeting those two criteria. Specific distinctive plant species are preferred, and other plant species are removed; the types of plants may differ slightly based on location and environment, but cedar, hemlock, and arbor vitae are common. Gravestones are made using found material and most commonly not commercially manufactured. Graves are often mounded, and grave shelters (simple four-posted structures with a gable roof) were common. Jeane states that the Upland South cemetery type includes cults of piety where the “care and upkeep of the cemetery is a ritual of love and respect...A lurid sink or open crevice indicates lack of familial respect” (Jeane 1978:901). Care and upkeep of gravesites by family members is again typical of many different cemetery types throughout North America, although some of the rituals characteristic of the Upland South cemetery are highly specific. A distinctive feature of the Upland South cemetery type is the lack of grass, either over the graveyard as a whole or at particular plots/graves. Jeane notes that a number of the traits characteristic of the southern folk cemetery have, in fact, been linked to a European origin, either from northwestern Europe or Mediterranean areas (Jeane 1989:122). Though there are some similarities in the characteristic traits of both the Upland South folk cemetery and the vernacular African American cemetery, those are likely based on the shared Christian religion of both early European immigrants to the south and the descendants of formerly enslaved Africans. Additionally, traits such as the small size of graveyards and use of non-commercial grave markers are likely a common response to the scarcity of resources shared by poor, rural whites and African Americans. Additional comparative research would be needed to more systematically identify character-defining features of cemeteries associated with this type of benevolent society chapter (cf. Rainville 2014; Brooks 2011).

4.7 Geophysical Survey Results

The geophysical surveys of the Morningstar Cemetery and Gibson Grove Church were completed in July 2021. The interpretation of the geophysical survey results summarized below and discussed within Appendix G is based on the size, shape, depth, and geophysical characteristics of recorded anomalies. Anomalies and interpretations such as possible burials or other features are not definitive. In the following sections, some anomalies are labeled as probable and possible burials; these categories are based on the potential of the anomaly to represent a burial. Probable burials are geophysical anomalies that displayed a strong disturbance, dimensions and depth analogous to a burial shaft, and similar orientation to surrounding anomalies, known burials or expected orientations of burials, as well as association with a grave marker or depression, when present. Possible burials may be able to be explained by a non-burial disturbance, though it is burial like. The geophysical survey results are overlaid onto the Morningstar Cemetery documentation mapping on Figures 61A to 61C, and the geophysical survey results for the Gibson Grove Church are shown on Figure 43 in Appendix G.

4.7.1 Gibson Grove Church

A total area of 0.058 acres (0.024 ha.) were investigated through geophysical survey at Gibson Grove Church (Figures 42, 43, 45, 62 to 67). The survey area was confined to the open, mown grass area [REDACTED]. The survey extended as far as trees, dense vegetation and the steep topography allowed. Four anomalies were identified that may be related to burials (Appendix G: Figure 43). The survey within the Gibson Grove Church clearly indicates the location of one probable unmarked burial [REDACTED] and two possible burials [REDACTED]. [REDACTED], one possible burial was identified, as well as one other feature/disturbance anomaly.

The 1961 Montgomery County Plat 23510 shows Gibson Grove Church [REDACTED]. [REDACTED] Additionally, a member of the Gibson Grove Church, who was a descendant of families that had lived in Cabin John in the nineteenth century, stated that her family had been buried on the church property (Jones 2010:2). The local newsletter *Village News* included in an article that the church yard had been used for burials until 1912 (*The Village News* 2003). The original part of the extant church structure was built in 1923, south or southwest of the older log-structure church. The date of 1912 for the latest burials at the church would mean that they were placed at the earlier location for the church, and not at the location where the church currently stands. Also, if the burials are related to the Crawford and White families, as reported in Jones's dissertation, the first marriage between those families occurred in 1923 between Rodney White and Mary Crawford (Jones 2010:2, 51). If the possible burial(s) are children from the White/Crawford families, then the burials likely occurred between the mid-1920s through the mid-1940s. According to interviews conducted by Jones, the White family had 11 children that were born between 1923 and the early 1940s (Jones 2010:51). This would mean that any potential burials identified on the church parcel would likely pre-date the White/Crawford burials.

4.7.2 Morningstar Cemetery

A total of 0.59 acre (0.24 ha) was investigated through geophysical survey at the Morningstar Cemetery, including the adjacent MDOT SHA ROW (Figures 68 to 71). Within Morningstar Cemetery, a total of 378 anomalies were identified during the geophysical survey (Figures 61A to 61C). A total of 189 anomalies appear to be consistent with burials based on shape, size, depth, and orientation, and are identified as probable burials. An additional 189 anomalies were identified as possible burials with some qualities that suggest they may be related to burials, but may also be explained as other disturbances. Another 138 anomalies were identified as other features/disturbances, and are more likely associated with root disturbances or other natural soil variations; however, it is not possible to totally rule out that they are caused by unmarked burials. No burials were identified in the immediate area surrounding the Lodge foundation, though a possible buried wall may be present approximately 8 feet south of the visible southern wall of the Lodge. It is possible that some burials have gone undetected in the survey, as it was not possible to collect data across the entire cemetery due to obstacles such as dense vegetation.



Figure 63: View of the steep slope south of the Gibson Grove Church toward I-495 (the roadway is out of sight to the left), facing west (July 2021).

The geophysical survey identified 27 anomalies within the MDOT SHA ROW (Figures 3A to 3D). Of the 27, there are 14 that are most likely to represent burials based on size, shape, depth, and orientation. An additional 13 anomalies are similar to burials in size, shape, depth, or orientation, but not all, and may represent other natural or man-made disturbances, or natural soil variations. Overall, the GPR reflections in the area of the MDOT SHA ROW were weaker when compared to other areas, likely due to the channery soils present, making interpretation more uncertain.

The geophysical survey at Morningstar Cemetery revealed many anomalies that are likely burials, based on size, shape, depth and orientation. Many anomalies correspond to identified burials from the previously documented burials site or are situated within the same orientation as identified burial features. Seventy-two features were identified from the documentation project that are likely or probable to be burial related, these surficial features include grave shaft-shaped depressions, embedded tabular stone markers and other grave markers. All features identified as likely or probable burial related features are oriented similarly in rows. GPR data suggests that 378 anomalies within the Morningstar Cemetery and 27 anomalies within the MDOT SHA ROW are probable or possibly burial related. As discussed previously, more burials than those documented from the surface were expected to be present in the cemetery. No probable or possible burial related features were identified within the MDOT SHA ROW during the initial cemetery documentation. GPR data suggests that there may be up to 34 anomalies within the MDOT SHA ROW that are burial related, when overlaid on the 1957 aerial photograph of the area (Figures 72A to 72C), the anomalies are present within the small triangular area, outside of the current parcel boundary and the unimproved road [REDACTED]

[REDACTED] GPR data also displayed a faint indication of an anomaly approximately eight feet south of the exposed southern foundation wall of the Moses Hall. The anomaly may indicate a buried portion of wall or excavated foundation trench in this area.

As previously stated, many more burials than what was discernable at the surface were expected to be present; the cemetery was in use from at least 1884 to 1973. Forty-three out of a total of 66 tier 1 burials coincide with probable or possible burials identified in the GPR survey. Those that coincide are overlapping or partially overlapping. In some instances, a surface burial feature appears to fall between or near two burials located with GPR. There are 23 burials that were identified from surface features that do not coincide with a below ground burial feature. Discrepancies between burials identified through surface features and those identified through the geophysical survey are likely the result of several factors. Some surface features used to identify burials can also be explained by natural phenomena. For example, many burial markers were constructed from fieldstone, which is naturally present in the area; it is possible that some may simply coincidentally appear to be burial markers. Over the at least 89 years of burials at Morningstar Cemetery some natural and man-made disturbances may have moved or otherwise disturbed some burial markers. Examples of such disturbances include excavations of nearby burials, tree falls, cemetery clean ups, heavy rain or snow, and replacement of burial markers; such disturbances may have shifted, or all together moved burial markers away from its associated grave. Additionally, it is possible that the geophysical survey was not able to detect burials in those locations due to the limitations and obstacles noted above.

5.0 SUMMARY AND RECOMMENDATIONS

A.D. Marble was requested to complete documentation, mapping, and archaeological monitoring within the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212) for the I-495 & I-270 Managed Lanes Study project. The archaeology survey area is located within the Upland Section of the Piedmont Plateau Physiographic Province in Cabin John, Montgomery County, Maryland. A.D. Marble conducted this project with assistance from Dovetail.

The archaeology survey area consists of the tax parcel containing the Morningstar Cemetery and the adjacent MDOT SHA ROW. The survey included the recordation and mapping of burials and other architectural and topographic features. A total of 109 ranked features were recorded within the Morningstar Cemetery. These include 72 features that represent 66 burials and 37 additional cemetery features that cannot be confidently associated with specific burials but are likely burial related. The Moses Hall foundation remains are present in the northeast corner of the survey area and include the main fieldstone foundation, a concrete block foundation, and the remnants of a brick chimney.

A clear depression is visible at the fence line between the cemetery parcel and the MDOT SHA ROW (Feature 96), and one depression (possibly representing a grave) lies within the ROW (Feature 98). Archival research has revealed 77 burials in Morningstar Cemetery through official death certificates, newspaper death notices or obituaries, and/or references in the meeting minutes book. Many burials are recognizable within the cemetery solely based on the presence of a grave depression, while there are ten grave markers with inscriptions that represent at least 11 burials. Other grave markers include uninscribed fieldstone, sandstone, quartz, and temporary metal name plaques.

The as-built plans note that this area contains “graves among woods and underbrush.” The area of graves appears to be separated from the remainder of the parcel by Moses Hall

The survey information is supported by this investigation; archaeological features that may represent graves appear to be concentrated within the area demarcated on the 1960 as-built plans (see Figures 3A to 3C). At the time that the as-built plans were prepared, the Lodge organization was still active; presumably, surveyors had access to both visible indicators of grave locations (possibly including wooden markers that are no longer extant) and informant information provided by members of the Lodge organization.

Located just to the north (outside) of the area of graves marked on the 1960 as-built plans, this depression is subtle, and is not as pronounced as definitive grave depressions within the cemetery parcel. Further investigation is required to confirm the nature of the depression and determine whether it represents a grave.

[REDACTED] Uninscribed fieldstone markers, a feature often related to older African American burials, [REDACTED]

[REDACTED] Down the hillslope in the eastern part of the cemetery, there are visible rows, but there is more (apparent) empty space between them. This may reflect the involvement of funeral homes in later interments, providing expertise in burial maintenance and grave filling, as well as the use of burial vaults that prevented subsidence and protected caskets from the weight of the overlying soil.

Although parts of the Morningstar Cemetery [REDACTED] appear to be vacant due to the lack of unmistakable grave features, the layout of definitive burials suggests that the [REDACTED] portions of the parcel were heavily used for interments, and certainly contain many unmarked burials.

While the Morningstar Cemetery and the nearby River Road Moses Cemetery have both been previously compared to the Upland South cemetery type, historic research suggests that the comparison may not be correct. Instead, the cemetery represents a vernacular African American cemetery that does not appear to fall within a specific, previously defined type. Late-nineteenth- and early-twentieth-century African American cemeteries associated with fraternal lodge organizations may have their own characteristics that merit further investigation.

HAP conducted a geophysical survey using high-resolution GPR surveys over areas at the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212) and the historically related Gibson Grove Church. The goal of the July 2021 surveys was to detect and map marked and unmarked graves at both locations. An area of around 0.59 acre (0.24 ha) at the Morningstar Cemetery was investigated, with the identification of 189 probable burials and a suggested 189 possible burials (for a total of 378), the majority of which were determined to be arranged in rows. Results revealed that subsurface anomalies interpreted as graves continue into the MDOT SHA ROW [REDACTED]. It is likely that 14 of the 34 anomalies identified within this area are unmarked burials, and the remaining anomalies may have alternative, natural explanations. At the Gibson Grove Church, a smaller area of around 0.058 acre (0.024 ha) was investigated, with the identification of one probable unmarked burial [REDACTED] and another two possible burials [REDACTED]. A possible burial and one other feature/disturbance was identified [REDACTED] of the church. .

5.1 Recommendations

It is recommended that the project design be modified to avoid all impacts to the Morningstar Cemetery property to the maximum extent feasible. If complete avoidance is not possible, it is recommended that appropriate mitigation options be developed in the project programmatic agreement.

Based on the possibility of burials within or adjacent to the ROW, and depending on project plans impacting the ROW, additional archaeological investigations are recommended for the ROW portion of the archaeology survey area. If impacts cannot be avoided within those parts of the

current MDOT SHA ROW that were once part of the cemetery property, the following measure should be carried out within the project limits of disturbance in all areas of the MDOT SHA ROW where intact graves may exist. Such areas shall be fully explored by excavation to strip topsoil and identify buried grave features, preferably using a Gradall or similar machine, as this type of equipment is best suited to carefully controlled stripping. Because the results of remote sensing investigations can be variable based on soil conditions and other factors, remote sensing investigations do not provide an unequivocal means of identifying burials. Burial features can only be conclusively identified through careful excavation designed to identify interments (grave shafts) in such a way as to provide for controlled archaeological excavation of the burial(s). The work may need to be completed in two phases: identification and recovery/relocation.

If complete avoidance is not possible, it is recommended that appropriate mitigation options be developed in the project programmatic agreement, to be determined by consultation among MDOT SHA, FHWA, and consulting parties.

Continued close coordination with consulting parties affiliated with the Morningstar Cemetery is also recommended.

References

Baughner, Sherene and Richard F. Viet

- 2014 *The Archaeology of American Cemeteries and Gravemarkers*. University Press of Florida, Gainesville, Florida.

Bauman, William

- 2013 Moore - Stone Family History, including the memories of Lilly Lievsay and the research of Judith Welles. Electronic document, [Moore-Stone-Family-History.pdf \(candocanal.org\)](https://candocanal.org/Moore-Stone-Family-History.pdf), accessed January 2021.

Bird, Betty and Julie Darsie

- 2003 Maryland Historical Trust Maryland Inventory of Historic Properties Form: Abraham Hall (PG:62-7). Copy on file at Maryland Historical Trust, Crownsville, Maryland.

Boyd, T.H.S.

- 1879 *The History of Montgomery County, Maryland, from its Earliest Settlement in 1650 to 1879*. W.K. Boyle & Son, Printers, Baltimore, Maryland.

Brooks, Christina

- 2011 Enclosing Their Immortal Souls: A Survey of Two African American Cemeteries in Georgetown, South Carolina. *Southeastern Archaeology*, Summer 2011, Vol. 30, No. 1, pp 176-186.

Brown, James H. and Steve T. Dyer

- 1995 *Soil Survey of Montgomery County, Maryland*, Electronic document, [Soil Survey of Montgomery County, Maryland \(1995\) \(usda.gov\)](https://soilseries.science.gov/soilseries/1995/1/Soil+Survey+of+Montgomery+County,+Maryland+(1995)+usda.gov), accessed March 30, 2021.

Brown, J. Emmet, Chris Heidenrich, Lori Richard, Kate Gallagher, Michael Hornum, and Christian Davenport

- 2003 *Phase I Archaeological Survey of the Proposed Allegheny Heights Wind Energy Project, Garrett County, Maryland*. R. Christopher Goodwin & Associates, Inc. Frederick, Maryland.

Bruder, Anne

- 2003 Maryland Historical Trust Maryland Inventory of Historic Properties Form: Union of Brothers and Sisters, Ford's Asbury Lodge (BA-358). Copy on file at Maryland Historical Trust, Crownsville, Maryland.

Busey, Samuel Claggett

- 1896 *A Souvenir with an Autobiographical Sketch of Early Life and Selected Miscellaneous Addresses and Communications*. Electronic document, <https://archive.org/details/souvenirwithauto00buse>, accessed May 2021.
-

Center for Historic Preservation Middle Tennessee State University (CHPMTSU)

- 2000 *Powerful Artifacts: A Guide to Surveying and Documenting African-American Churches in the South*. Electronic document, [Untitled-3 \(mtsuhistpres.org\)](#), accessed December 2020.

Clarke, Nina H., and Frank McKinney

- 1976 "Black Schools in Cabin John." *The Bicentennial Cabin John*. On file at the Montgomery County Historical Society, Rockville, Maryland.

Clinton A.M.E. Zion Church

- 2012 History. Electronic document, [Clinton A.M.E. Zion Church](#), accessed April 2020.

Diamanti, Melissa, David J. Rue, and Conran A. Hay

- 2008 *Phase I Archaeological Identification Survey for I-495 Capital Beltway Mainline Project and Stormwater Ponds, Montgomery and Prince George's Counties, Maryland*. MO 236. Archaeological and Historical Consultants, Inc. Report on file at Maryland Historical Trust, Crownsville, Maryland.

Donaghue, Erin

- 2008 "Scout helps restore community history." *Capital Gazette* April 16, 2008. Article received from Charlotte Troup Leighton, Cabin John, Maryland.

DuBois, W.E.B.

- 1995 "The Negro of Farmville Virginia." In David Lewis, editor, *W.E.B. DuBois A Reader*. Henry Holt and Company, New York.

Editors of the Encyclopedia Britannica

- n.d. "African Methodist Episcopal Zion Church." Electronic document, <https://www.britannica.com/topic/African-Methodist-Episcopal-Zion-Church>, accessed May 2021.

Evans, June

- 1978 *Preliminary Archaeological Reconnaissance of the Cabin John Relief Sewer, Montgomery County, Maryland*. MO 14. The American University. Report on file at Maryland Historical Trust, Crownsville, Maryland.

The Evening Star [Washington, D.C.]

- 1888 The A.M.E. Zion Conference: Appointments for the Year Announced by the Bishop Last Evening. April 24. Electronic document, www.newspapers.com, accessed May 2021.
- 1893 A.M.E. Conference: It Will Adjourn This Afternoon-List of the Appointments. May 23. Electronic document, www.newspapers.com, accessed May 2021.
- 1895 Adjournment of the A.M.E. Conference at York, PA. May 22. Electronic document, www.newspapers.com, accessed May 2021.
-

1911 "Political Meeting at Gibson Grove." November 3, 1911:16.

Farquhar, Roger Brooke

1952 *Historic Montgomery County, Maryland, Old Homes and History*. Monumental Printing Company, Baltimore, Maryland.

Frederick County Circuit Court

1784 Patented Certificate 536: Bite the Biter, Joseph White. Electronic document, <https://plats.msa.maryland.gov/pages/index.aspx>, accessed May 2021.

Gambrill, J. Montgomery

1917 *Leading Events of Maryland History, with Topical Analyses, References and Questions for Original Thought and Research*. The Athenaeum Press, Boston, Massachusetts.

Havlik, Dana N.

2020 *First Agape AME Zion Church (7700 Seven Locks Road) Drainage Investigation; 20-DM-MO-004*. Maryland Department of Transportation State Highway Administration (MDOT SHA). Report on file at MDOT SHA, Baltimore, Maryland.

Hiebert, Ray E. and Richard K. McMaster

1976 *A Grateful Remembrance: The Story of Montgomery County, Maryland*. Montgomery County Historical Society, Rockville, Maryland.

Horsley, T.J.

2021 *Morningstar Tabernacle No. 88 Moses Hall and Cemetery and Gibson Grove A.M.E. Church, Cabin John, Montgomery County, Maryland*. Horsley Archaeological Prospection, LLC, DeKalb, Illinois.

Jeane, D. Gregory

1978 The Upland South Cemetery: An American Type. *Journal of Popular Culture*, Spring 1978. Electronic document, [Wiley Online Library | Scientific research articles, journals, books, and reference works](#), accessed May 2021.

1989 *The Upland South Folk Cemetery Complex: Some Suggestions of Origin*. University Press of Colorado/Utah State University Press, Boulder, Colorado and Logan, Utah.

Jones, Alexandra

2010 Gibson Grove A.M.E. Zion Church Gone But Not Forgotten: The Archaeology of an African American Church. Dissertation, University of California, Berkeley. Electronic document, [Gibson Grove A.M.E. Zion Church Gone But Not Forgotten: The Archaeology of an African American Church \(escholarship.org\)](#), accessed March 2020.

Kathan, David, Amy Rispin, and L. Paige Whitley

- 2017 The Forgotten African American Community of River Road. Electronic document, [Microsoft Word - FINAL2Forgotten African American Community of River Road.docx \(mcatlas.org\)](#), accessed April 2020.

Klinge, Frank H.M.

- 1931 Property Atlas of Montgomery County, Maryland, Volume 1. Lansdale: Frank H.M. Klinge Engineers and Publishers. On file at the Montgomery County Historical Society), Rockville, Maryland.
- 1941 Property Atlas of Montgomery County, Maryland, Volume 1. Lansdale: Frank H.M. Klinge Engineers and Publishers. On file at the Montgomery County Historical Society, Rockville, Maryland.
- 1948 Property Atlas of Montgomery County, Maryland, Volume 2. Lansdale: Frank H.M. Klinge Engineers and Publishers. On file at the Montgomery County Historical Society, Rockville, Maryland.
- 1959 Property Atlas of Montgomery County, Maryland, Volume 2. Lansdale: Frank H.M. Klinge Engineers and Publishers. On file at the Montgomery County Historical Society, Rockville, Maryland.

Kytle, Elizabeth

- 1976 "Planting by the moon." Interview with Mrs. Edward Jones. *Time Was, A Cabin John Memory Book*, pp. 41–46. On file at the Montgomery County Historical Society, Rockville, Maryland.

Leighton, Charlotte

- 2020 Personal communication. Discussion about cemetery. March 23, 2020.

Manning, Matt

- 2020 Maryland Historical Trust Determination of Eligibility Form: Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212). Copy on file at Maryland Historical Trust, Crownsville, Maryland.

Maryland Department of Transportation, State Highway Administration (MDOT SHA)

- 2017 *Archaeology Guidelines for Consultants*. Maryland Department of Transportation State Highway Administration, Project Planning Division, Archaeology Group, Baltimore, Maryland.

Maryland Historical Trust (MHT)

- 2021 *Maryland's Cultural Resource Information System (MEDUSA)*. Available online at [Medusa, Maryland's Cultural Resource Information System- Version 1.0](#), accessed March 2021.
-

Maryland iMAP

- 2019 Maryland 6-inch Imagery. Electronic document, [Folder: / \(md.gov\)](#), accessed April 2021.

Maryland State Archives (MSA)

- n.d. Black Marylanders 1810: African American Population by County, Status & Gender. Electronic document, <http://slavery.msa.maryland.gov/html/research/census1810.html>, accessed April 2021.
- 2020 *A Guide to the History of Slavery in Maryland*. Electronic document, <http://slavery.msa.maryland.gov/pdf/md-slavery-guide-2020.pdf>, accessed April 2021.

Mellnik, Ted, Carol Morello, and Katie Park

- 2013 Income slide comes to an end for most states. *The Washington Post*. September 19. Electronic document, [Household income around the U.S. - The Washington Post](#), accessed April 1, 2021.

Montgomery County Circuit Court

- 1802 Patented Certificate 80: Peter, Robert, Carderrock. Electronic document, <https://plats.msa.maryland.gov/pages/index.aspx>, accessed May 2021.

Montgomery County Deed Book (MCDB)

- var. Montgomery County Deed Books. Misc. years. Montgomery County Land Records, Archives of Maryland Online. Electronic document, [MDLANDREC: Home Page](#), accessed April 2020.

Montgomery County, Maryland (MCM) and Montgomery County Historical Society (MCHS)

- 1999 *Montgomery County, Maryland: Our History and Government*. Electronic document, <https://www.montgomerycountymd.gov/cct/Resources/files/history.pdf>, accessed April 2021

Montgomery County Plats (MCP)

- var. Montgomery County Plats. Misc. years. Montgomery County Land Records, Archives of Maryland Online. Electronic document, [MDLANDREC: Home Page](#), accessed April 2020.

Morningstar Tabernacle No. 88

- var. Moses Hall meeting minutes from 1904–1914, unpublished manuscript. Electronic document, pp. 1–144, on file at the Montgomery County Historical Society, Rockville, Maryland.

Mower, Jesse T. and Russell B. Cole

- 1937 “Gibson Grove A.M.E. Zion Church.” Federal Writer’s Project. “The Church” Series. On file at the Montgomery County Historical Society, Rockville, Maryland.
-

My Counties

- 2021 Boundary Changes of Maryland Counties from 1637-1997. Electronic document, <https://mycounties.com/maryland/>, accessed April 2021.

The National Republican [Washington, D.C.]

- 1886 African M.E. Conference Appointments. May 26. Electronic document, <https://www.loc.gov/item/sn86053573/1886-05-26/ed-1/>, accessed September 2020.

Nationwide Environmental Title Research, LLC (NETR)

- 1949 Historic Aerial Mosaic Montgomery County, Maryland. Electronic document, [Historic Aerials: Viewer](#), accessed May 2020.
- 1962 Historic Aerial Mosaic Montgomery County, Maryland. Electronic document, [Historic Aerials: Viewer](#), accessed May 2020.
- 1963 Historic Aerial Mosaic Montgomery County, Maryland. Electronic document, [Historic Aerials: Viewer](#), accessed September 2020.
- 1964 Historic Aerial Mosaic Montgomery County, Maryland. Electronic document, [Historic Aerials: Viewer](#), accessed September 2020.

Onderdonk, Henry and James McSherry

- 2009 *A History of Maryland: Upon the Basis of M'Sherry, from Its Settlement to 1867*. BiblioBazaar, Charleston, South Carolina.

P.A.C. Spero & Company

- 1996 *Historic Highway Bridges in Maryland: 1631-1960: Historic Context Report*. P.A.C. Spero and Company. Baltimore, Maryland

The (Potomac) Almanac

- 2001 Church Marks Historic Gibson Grove Community. April. On file at the Montgomery County Historical Society, Rockville, Maryland.

The Potomac Times

- 1979 Dedication. May 10. On file at the Montgomery County Historical Society (MCHS), Rockville, Maryland.

Potter, Stephen R.

- 1993 *Commoners, Tribute, and Chiefs: The Development of Algonquian Culture in the Potomac Valley*. University of Virginia Press, Charlottesville, Virginia.

Prince George's County Circuit Court

- 1715 Unpatented Certificate 410: Fletchall Garden, Thomas Fletchall. Electronic document, <https://plats.msa.maryland.gov/pages/index.aspx>, accessed May 2021.
-

1717 Patented Certificate 927: Fletchall, Thomas, Gleaning. Electronic document, <https://plats.msa.maryland.gov/pages/index.aspx>, accessed May 2021.

1738 Patented Certificate 1780: Reads Delight, John Read. Electronic document, <https://plats.msa.maryland.gov/pages/index.aspx>, accessed May 2021.

Rainville, Lynn

2014 *Hidden History: African American Cemeteries in Central Virginia*. University of Virginia Press, Charlottesville, Virginia.

Randall, J.G., and David Donald

1969 *The Civil War and Reconstruction, Second Edition*. D.C. Heath and Company, Boston Massachusetts.

Reed, Paula S.

1980 *Historic Preservation Survey and Planning Project: Williamsport, Washington County, Maryland, Final Survey Report*. The Washington County Department of Housing and Community Development. On file at the Washington County Historical Society.

Rivers, Robert D.

1992 Scotland A.M.E. Zion Church (M: 29-15). State Historic Sites Inventory Form. On file, Maryland Historical Trust, Crownsville, Maryland.

Rotenstein, David

2018 The River Road Cemetery: A Historic Preservation Evaluation. Electronic document, [MIHP-Historic Context \(mcatlas.org\)](https://mcatlas.org/MIHP-Historic-Context), accessed May 2020.

Scharf, J. Thomas

1882 *History of Western Maryland. Being a History of Frederick, Montgomery, Carroll, Washington, Allegany, and Garrett Counties from the Earliest Period to the Present Day*. J.B. Lippincott & Co. Press, Philadelphia, Pennsylvania.

Semmes, Alex

1977 Roots of Gibson Grove Church. *The (Potomac) Almanac*. June. On file, Montgomery County Historical Society, Rockville, Maryland.

Shaffer, Gary D. and Elizabeth J. Cole

1994 *Standards and Guidelines for Archeological Investigations in Maryland*. Maryland Historical Trust Technical Report Number 2. Electronic document, [Archeology standards investigations.pdf \(maryland.gov\)](https://www.maryland.gov/Archeology_standards_investigations.pdf), accessed February 2021.

Soladay, Monica Wraga

2004 Fire destroys historic church: Congregation continues worship at Clara Barton center. *Potomac Gazette*. March 3. On file, Montgomery County Historical Society, Rockville, Maryland.

Springate, M.E.

- 2015 *Coffin hardware in Nineteenth Century America*. Left Coast Publishing, Walnut Creek, California.

Sween, Jane C.

- 1984 *Montgomery County, Two Centuries of Change*. Windsor Publications, Inc. Woodland Hills, California.

State Highway Administration (SHA)

- 1961 Office of Real Estate File No. 48363, ROW Report. Available at the Maryland Department of Transportation State Highway Administration, Baltimore, Maryland.

State Roads Commission

- var. State Roads Commission Plats of Montgomery County. Misc. years. Montgomery County Land Records, Archives of Maryland Online. Electronic document, [MDLANDREC: Home Page](#), accessed April 2020.

Turner, Henry McNeal

- 1885 *The Genius and Theory of Methodist Polity, or the Machinery of Methodism*. Electronic document, [Henry McNeal Turner, 1834-1915. The Genius and Theory of Methodist Polity, or the Machinery of Methodism. Practically Illustrated through a Series of Questions and Answers. \(unc.edu\)](#), accessed November 2020.

United States Census Bureau

- 1790a Federal Population Census Records for Montgomery County, Maryland. Electronic document, [www.ancestry.com](#), accessed May 2021.

- 1790b *Return of the Whole Number of Persons within the Several District of the United States*. Electronic document, [https://www.census.gov/library/publications/1793/dec/number-of-persons.html](#), accessed April 2021.

- 1800a Federal Population Census Records for Montgomery County, Maryland. Electronic document, [www.ancestry.com](#), accessed May 2021.

- 1800b *Return of the Whole Number of Persons within the Several District of the United States*. Electronic document, [https://www.census.gov/library/publications/1801/dec/return.html](#), accessed April 2021.

- 1850 Federal Population Census-Slave Schedules for Montgomery County, Maryland. Electronic document, [www.ancestry.com](#), accessed May 2021.
-

- 1860 Population of the United States in 1860; Compiled from the Original Returns of the Eighth Census. Electronic document, <https://www2.census.gov/library/publications/decennial/1860/population/1860a-01.pdf>, accessed April 2021.
- 1900 Federal Population Census Records for Montgomery County, Maryland. Electronic document, www.ancestry.com, accessed May 2021.
- 1910 Federal Population Census Records for Montgomery County, Maryland. Electronic document, www.ancestry.com, accessed May 2021.
- 1920 Federal Population Census Records for Montgomery County, Maryland. Electronic document, www.ancestry.com, accessed May 2021.
- 1930 Federal Population Census Records for Washington, District of Columbia. Electronic document, www.ancestry.com, accessed May 2021.
- 1940 Federal Population Census Records for Montgomery County, Maryland. Electronic document, www.ancestry.com, accessed May 2021.
- 2020 Population of Montgomery County – Maryland. Available online at [U.S. Census Bureau QuickFacts: Maryland](https://www.census.gov/quickfacts/md01), accessed March 30, 2021.

United States Climate Data

- 2021 Climate Laurel Area – Maryland. Available online at [Climate Laurel - Maryland and Weather averages Laurel \(usclimatedata.com\)](https://climate.laurel.md.usclimatedata.com), accessed March 30, 2021.

United States Department of Agriculture (USDA)

- 1957 LGW0000010110, Aerial Photography Single Frames Record Collection. Electronic document, [EarthExplorer \(usgs.gov\)](https://earthexplorer.usgs.gov), accessed April 2021.
- 1963 1VAQW00010102, Aerial Photography Single Frames Record Collection. Electronic document, [EarthExplorer \(usgs.gov\)](https://earthexplorer.usgs.gov), accessed April 2021.

United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS)

- 2021a Web Soil Survey. Available online at [Web Soil Survey - Home \(usda.gov\)](https://websoilsurvey.scisearch.usda.gov/), accessed March 30, 2021.
- 2021b *Official Soil Series Definitions*. Available online at [Official Soil Series Descriptions \(OSDs\) | NRCS Soils \(usda.gov\)](https://soilseries.scisearch.usda.gov/), accessed March 30, 2021.

United States Geological Survey (USGS)

- 1945 Falls Church, Virginia. *Quadrangle, 7.5 Minute Series*. United States Geological Survey, Denver, Colorado.
-

- 1951 Falls Church, Virginia. *Quadrangle, 7.5 Minute Series*. United States Geological Survey, Denver, Colorado.

The Village News

- 1985 The People of Cabin John: Bill White: Always Part of Cabin John. Volume 18, Number 6. February 1985. Article received from Charlotte Troup Leighton, Rockville, Maryland.
- 2003 Historic Gibson Grove Church Disbands. Volume 36, Issue 6. March 2003. On file, Montgomery County Historical Society, Rockville, Maryland.
- 2004 Historic Cabin John Church Devastated by Ash Wednesday Fire CJCA to coordinate Community Response. Unknown Volume and Issue. Article received from Charlotte Troup Leighton, Rockville, Maryland.

Wall, Robert

- 2012 *Phase I Archaeological Survey for the US 219 over Cherry Creek Bridge Replacement Project, Garrett County, Maryland*. SHA Archaeological Report No. 456. TRC Environmental Corporation, Chapel Hill, North Carolina. Copy on file, Maryland Historical Trust, Crownsville, Maryland.

Ware, Donna

- 1992 Maryland Historical Trust Maryland Inventory of Historic Properties Form: St. Jacob's Lodge #28 (AA-894). Copy on file at Maryland Historical Trust, Crownsville, Maryland.
- 2001 Maryland Historical Trust Maryland Inventory of Historic Properties Form: Mt. Tabor Good Samaritan Lodge #59 (AA-775). Copy on file at Maryland Historical Trust, Crownsville, Maryland.

Whitley, L. Paige

- 2020a "The History of the Gibson Grove Community and the Gibson Grove AMEZ Church, Cabin John School and Morningstar Lodge No. 88 Moses Hall and Cemetery." Unpublished manuscript, on file electronically at Dovetail Cultural Resource Group, Fredericksburg, Virginia.
- 2020b Personal communication. Discussion about cemetery and church. April 2020.
- 2021 "Death & Burial Information, Morningstar Moses Cemetery." Unpublished manuscript, on file electronically at Dovetail Cultural Resource Group, Fredericksburg, Virginia.

Works Progress Administration (WPA)

- 2014 *The WPA Guide to Maryland*. Electronic document, accessed through Apple Books, April 2021.
-

Appendix A

Frank G. Mikolic, III, M.A., RPA
Archaeological Principal Investigator

Mr. Mikolic has over 21 years of experience in archaeology throughout the eastern United States. In his capacity as principal investigator, he has conducted, directed, and managed more than 150 archaeological field projects in Maryland, Delaware, New Jersey, Maine, Rhode Island, Pennsylvania, the District of Columbia, Virginia, Georgia, West Virginia, Kansas, and New York. These projects have ranged from initial scoping efforts to monitoring projects, to large-scale archaeological data recovery excavations of multi-component prehistoric and historic sites. As principal investigator, he has developed, implemented, and coordinated field, laboratory, research, technical reports, and public involvement methods. He has also acted as an archaeological laboratory director and has knowledge of prehistoric and historic artifact types. He is the winner of a 2013 New Jersey Historic Preservation Award for the Data Recovery Report for the I-95 Scudder Falls Bridge Improvement Project.

Education

- 2004 M.A., American Studies, Penn State University
1999 B.A., Anthropology, Clarion University of Pennsylvania

Professional Experience

2017 - Present	A.D. Marble	<i>Principal Investigator</i>
2013 - 2017	Stell Environmental	<i>Project Manager Cultural Resources Group</i>
2010 - 2013	AECOM	<i>Principal Investigator</i>
2007 - 2010	Parsons Brinckerhoff (now WSP)	<i>Senior Archaeologist</i>
2000 - 2007	A.D. Marble & Company, Inc.	<i>Archaeological Lab Director, Principal Investigator</i>
1999 - 2000	Michael Baker Jr., Inc.	<i>Cultural Resource Specialist</i>
1996 - 1999	Clarion University of Pennsylvania	<i>Archaeological Lab Assistant</i>

Professional Affiliations

Register of Professional Archaeologists (16415)
Society for Historical Archaeology
Organization of American Historians
Society for Pennsylvania Archaeology
Archaeological Society of Maryland
Archaeological Society of New Jersey

Training/Certifications

- 2001 40 Hour OSHA HAZWOPER Certification
2004 "Section 106 Essentials," Advisory Council on Historic Preservation
2011 OSHA HAZWOPER Supervisor Certification

Jennifer Falchetta, M.A., RPA
Field Director

Jennifer Falchetta has more than 13 years of experience in archaeology in the northeastern United States. She has managed more than 50 archaeological field projects in New Jersey, Pennsylvania, Delaware, and New York. She specializes in prehistoric archaeology of northeastern North America; historic archaeology, with experience in both rural and urban settings (eighteenth to twentieth centuries); cultural resource management; and prehistoric ceramic and artifact analysis. She has been involved in all aspects of historic and prehistoric archaeology from Phase I surveys to data recovery projects on farmsteads, industrial sites, and floodplain and residual settings.

Education

- 2018 M.A., Anthropology, Monmouth University
- 2007 B.A., Anthropology, West Chester University of Pennsylvania

Professional Experience

2018 – Present	A.D. Marble	<i>Archaeological Field Director</i>
2018 – 2018	Maser Consulting	<i>Archaeological Field Director</i>
2013 – 2018	RGA, Inc.	<i>Crew Chief/Field Technician</i>
2012 – 2013	NJ HPO	<i>Historic Preservation Associate</i>
2010 – 2012	URS, Corp. (now AECOM)	<i>Graduate Archaeologist</i>
2008 – 2010	RGA, Inc.	<i>Field Technician</i>

Professional Training

40-Hour OSHA HAZWOPER Training
10-Hour OSHA Construction Training

Affiliations

Register of Professional Archaeologists (18019)

Patricia Slovinac
Senior Architectural Historian

Ms. Slovinac has over 18 years of experience in cultural resource management. Her primary responsibilities consist of conducting historic architectural surveys and research, evaluating architectural resources for National Register eligibility, documenting architectural resources, writing assessment of eligibility and effect reports, and preparing mitigation documents and materials. She has effectively coordinated and completed a multitude of projects as part of Section 106 of the NHPA and Section 4(f) of the U.S. Department of Transportation Act. She also has overseen historical/architectural field crew, and the scheduling and organizing of various projects. Ms. Slovinac served as an architectural historian for NRHP eligibility surveys at several National Aeronautics and Space Administration (NASA) centers, including the Kennedy Space Center in Florida, the Johnson Space Center in Texas, the Marshall Space Flight Center in Alabama, the Glenn Research Center in Ohio, and the Dryden Flight Research Center in California. Following these surveys, she compiled numerous HABS/HAER documentation packages for Kennedy Space Center facilities, such as the Vehicle Assembly Building, Launch Complex 39 Pad A, the Launch Control Center, and the Orbiter Processing Facility, which earned her a “Catch an Environmentalist Award” from the center. She also worked on the HAER documentation and National Historic Landmark nomination for the Space Shuttle Orbiter *Discovery*. Ms. Slovinac is knowledgeable of federal and state regulations and guidelines concerning the treatment of historic properties and exceeds the Secretary of the Interior’s Professional Qualifications Standards for Architectural Historians.

Education

- 2013 M.B.A., University of Phoenix
- 2005 M.A.H., Architectural History/Certificate in Historic Preservation, University of Virginia
- 1998 B.A.E., Lighting and Electrical, Pennsylvania State University

Professional Experience

2015 – Present	A.D. Marble	<i>Senior Architectural Historian</i>
2010 – 2015	Archaeological Consultants, Inc.	<i>Senior Architectural Historian</i>
2006 – 2010	Archaeological Consultants, Inc.	<i>Architectural Historian</i>
2005	National Architectural Trust	<i>Donation Specialist</i>
1998 – 2003	C.M. Kling & Associates	<i>Lighting Designer</i>

Training

- 2016 Section 106 Advanced Seminar, Advisory Council on Historic Preservation, Washington, D.C.
- 2013 Beyond Compliance, Historic Preservation in Transportation, National Highway Institute, Reston, VA.

2011 Section 4(f) Compliance for Historic Properties, National Preservation Institute, Richmond, VA.

2007 Section 106 Essential, Advisory Council on Historic Preservation, Orlando, FL.

Professional Presentations

2012 The Architecture of Spaceflight: Historic Properties at NASA's Kennedy Space Center in Florida and White Sands Space Harbor in New Mexico." Southeast Society of Architectural Historians annual meeting.

Professional Awards

2014 Catch an Environmentalist Award, John F. Kennedy Space Center

2007 Blue Marble Award, National Aeronautics and Space Administration

Russell L. Stevenson
Architectural Historian

Mr. Stevenson is an architectural historian with 13 years of experience in cultural resource management, including two years assessing historic structural integrity and performing conservation work. His primary responsibilities consist of conducting historic architectural surveys and historic research for a variety of projects. Mr. Stevenson has identified, surveyed, and evaluated a wide array of residential, agricultural, and commercial properties in New Jersey, Delaware, and Pennsylvania. In addition, he spent two summers as an apprentice and one year as an architectural conservator technician performing conservation work for the Fairmount Park Historic Preservation Trust. As a conservator technician, his work regularly required him to assess the integrity of both interior and exterior architectural elements of historic buildings in order to decide on and apply the appropriate treatment. Mr. Stevenson is extremely knowledgeable of the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings. Mr. Stevenson served two years as a board member for the Allentown Preservation League; a small non-profit organization in Allentown, Pennsylvania, that operates an architectural salvage warehouse and promotes historic preservation in the city of Allentown. He meets the Secretary of the Interior Standards for Professional Qualifications (36 CFR 61).

Education

2007	M.A., University of Delaware, Historic Preservation
2001	B.A., Pennsylvania State University, History

Professional Experience

2009-Present	A.D. Marble	<i>Architectural Historian</i>
2008-2009	Fairmount Park Historic Preservation Trust, Philadelphia, PA	<i>Conservator Technician</i>
2007	Hoffman Painting and Refinishing, Pipersville, PA	<i>Conservator/Asst. Project Manager</i>
2005-2007	Center for Historic Architecture and Design, Newark, DE	<i>Research Assistant</i>

Training

Summer 2006	Internship	<i>Fairmount Park Historic Preservation Trust, Philadelphia, PA</i>
-------------	------------	---

YEARS EXPERIENCE

With this firm: 7

With other firms: 9

EDUCATION

MA/Anthropology, in progress

BA/Anthropology, 2000

REGISTRATIONS/QUALIFICATIONS

None

PUBLICATIONS/PRESENTATIONS/COMMITTEES

A More Tolerable Quarter: Archaeology at Washington's Headquarters at Valley Forge. In *Historical Archaeology of the Revolutionary War Encampments of Washington's Army*, edited by Cosimo A. Sgarlata, David G. Orr, and Bethany A. Morrison (2019)

"To our division hospital... men were brought until rooms, verandas and lawns were full": Civil War archaeology along the Fredericksburg riverfront. With Kerry S. Gonzalez. Paper presented at the Middle Atlantic Archaeological Conference (2018)

Rethinking the Transitional Archaic Period in the Upper Delaware Valley: A View from the "Orient". In *The Nature and Pace of Change in American Indian Cultures: Pennsylvania, 4000 to 3000 BP*, edited by R. Michael Stewart, Kurt W. Carr, and Paul A. Raber (2015)

Marcus Hook, Pennsylvania: Toward the preservation of a significant historical landscape. In *Kings and Commoners, Settlers and Savants: The Historical Archaeology of the Delaware Valley, 1600-1820*, edited by Richard Veit and David G. Orr (2014)

How Can You Mend a Broken Hearth?: Preliminary results of excavations at the Driftstone site. *Journal of Middle Atlantic Archaeology* (2008)

JOSEPH R. BLONDINO

Field Director

EXPERIENCE

Mr. Blondino has over 15 years of experience doing archaeology in the Middle Atlantic region in both the academic and cultural resource management (CRM) realms. His experience ranges from survey and site identification to data recovery excavation on historic and prehistoric sites in Virginia, West Virginia, Maryland, North Carolina, New Jersey, Delaware, and Pennsylvania. Mr. Blondino's major research projects has involved excavations at General George Washington's Headquarters at Valley Forge; 36LA1100, a late prehistoric palisaded village near Lancaster, Pennsylvania; and the Driftstone site, a stratified Transitional Archaic site in the Upper Delaware Valley of Pennsylvania. Although his primary academic training is as an archaeologist, he also has extensive training in geology, geomorphology, and soil science and is interested in the applications of these fields to understanding archaeological site location and formation processes.

SAMPLE PROJECTS

Field Director/Riverfront Mound (Fredericksburg, Virginia). Data recovery excavations on an urban lot containing domestic and Civil War components.

Field Director/Somerset Extension Project (Wicomico and Somerset Counties, Maryland). Phase I archaeological survey of a proposed natural gas pipeline and associated facilities.

Field Director/MD 5 Great Mills Project (St. Mary's County, Maryland). Intensive Phase I survey of a proposed stream enhancement area along the St. Mary's River, including test unit excavation at a nineteenth-century mill site.

Field Director/NC 68 Widening Project (Guilford County, North Carolina). Archaeological survey and testing, including intensive testing of identified sites.

Field Director/Glen Lyn Campground Survey (Giles County, Virginia). Archaeological survey along a floodplain of the New River in southwest Virginia.

Field Director/Accokeek Creek Furnace (Stafford County, Virginia). Phase II archaeological evaluation of an eighteenth-century iron furnace.

Field Director/Arlington National Cemetery Expansion (Arlington, Virginia). Phase II archaeological study for United States Army Corps of Engineers to determine impacts to lands to be ceded to Arlington National Cemetery.

Field Director/Southampton Solar Project (Southampton County, Virginia). Phase I archaeological survey and probability model testing on large proposed solar farm.

Field Director/Brandy Farms Survey (Anne Arundel County, Maryland). Phase I archaeological survey of a proposed development site.



YEARS EXPERIENCE

With this firm: 3

With other firms: 1

EDUCATION

M.A./Architectural History, 2018

Master's Cert./Historic Preservation, 2018

B.A./History, 2009

REGISTRATIONS/QUALIFICATIONS

Secretary of Interior Standards Qualified as
Architectural Historian and Historian

PUBLICATIONS/PRESENTATIONS/COMMITTEES

Behind the Gates, Doors, Fences and Walls:
Architecture as Social Control in Early Charleston.
Master's Thesis (2018).

Sligo National Register of Historic Places
(forthcoming 2019).

Periwinkle Cottage National Register of Historic
Places Preliminary Information Form (2019).

Membership Committee, Vernacular Architecture
Forum

Member, Southeast Chapter of the Society of
Architectural Historians

Member, Victorian Society in America

KATHERINE M. WATTS, MA

Architectural Historian

EXPERIENCE

Ms. Watts has over four years of professional experience in the field of historic research, architectural history, and cultural resource management (CRM). Ms. Watts is an architectural historian for Dovetail and is involved with reconnaissance and intensive architectural history surveys. She has worked on several Phase I and II architectural surveys and led a National Register Nomination/Tax Credit project while with Dovetail. Her tasks at Dovetail include primary archival research; windshield, reconnaissance- and intensive-level architectural field surveys; National Register Historic Places Nominations; report production; and data entry into the Virginia Department of Historic Resources Virginia Cultural Resource System.

SAMPLE PROJECTS

Architectural Historian/Occupacia-Rappahannock Cost Share Survey (Essex County, Virginia). Reconnaissance-level architectural survey of resources within the historic district for the County/DHR Cost Share program.

Architectural Historian/I-495 Managed Lane Project Survey (Montgomery and Prince George's County, Maryland). Completion of intensive-level architectural studies on over 300 resources and agency coordination for widening of the I-495 beltway.

Historian/Phase II Archaeological Evaluation of Site 44PW1672 (Prince William County, Virginia). Archival research for the Phase II archaeological evaluation of site 44PW1672, associated with the Route 234 and Balls Ford Road interchange project.

Architectural Historian/Sligo NRHP Nomination and Tax Credits (Fredericksburg, Virginia). National Register of Historic Places nomination and tax credit application for the single-family dwelling constructed in 1888–89.

Architectural Historian/Old York Country Club Development Project (Burlington County, New Jersey). Intensive-level architectural study of mid-century country club plus HABS documentation of circa 1740 dwelling with decorative gable-end brick inlay.

Architectural Historian/Delaware Coastal Communities Architectural Survey (Sussex and Kent Counties, Delaware). Architectural descriptions and data entry in Delaware's Cultural and Historical Resource Information System.

Architectural Historian/Periwinkle Cottage NRHP Preliminary Information Form and Nomination (Charlottesville, Virginia). National Register of Historic Places preliminary information form and nomination (forthcoming 2019) of the single-family dwelling constructed in 1938.

Appendix B

Table 1: Parcel 361, Gibson Grove A.M.E. Zion Church, [REDACTED], Montgomery County, Maryland

INSTR. TYPE	BK	PG	DATE	GRANTOR	GRANTEE	NOTES / COMMENTS
Deed	MQR 32789	178–179	July 7, 2006	African Methodist Episcopal Zion Church, successor in interest to Gibson Grove A.M.E. Zion Church	First Agape A.M.E. Zion Church	\$2 for the 0.37-acre parcel. Part of a tract of land called “Carderrock,” that was sold by the Dowlings to Robert Gibson in 1880. Together with all the buildings and improvements thereon. Page 179 has a statement about how it must be used as a place of worship for the A.M.E. Zion Church.
Deed	CKW 3162	239	May 19, 1958	Robert Gibson (unmarried), and Wilson Gibson and his wife, Fannie	Snowden Dove, Charles Williams, Claude Clifton, Henry Shields, John Jackson, Nathaniel White, and Charles White, Trustees of Gibson Grove A.M.E. Zion Church	\$10 for 0.37 acre, part of the same land known as “Carderrock” conveyed to Robert Gibson by the Dowlings in 1880.
Deed	TD 4	191	June 20, 1898	Sarah Gibson	5 Gibson Grove Church Trustees: George Scott, John Price, Philip Jackson, Hillery Hebron, and Sarah Gibson	A portion of the 3.475-acre parcel (acreage not specified), part of a tract called “Carderrock,” located adjacent to the “school-house lot” for \$5. Sold “in trust that said premises shall be used, kept, maintained, and disposed of as a place of Divine Worship for the use of the ministry and membership of the African Methodist Episcopal Zion Church in America.”
Deed	EBP 22	62	January 22, 1880	Thomas and Amanda E. Dowling	Robert Gibson	Part of the tract of land called “Carderrock.” Approximately 3.475 acres (3.25 acres and 36 square perches). Gibson paid \$100.

Table 2: Parcel 361, School, [REDACTED], Montgomery County, Maryland

INSTR. TYPE	BK	PG	DATE	GRANTOR	GRANTEE	NOTES / COMMENTS
Deed	EBP 26	104	February 13, 1882	J.D.W. Moore, Silas Richards, and Peter Carter	Board of County School Commissioners	\$32.23 (remaining debt due on the schoolhouse). 0.25 acre with a schoolhouse built upon it, part of a tract of land called "Carderrock," sold to them by Robert and Sarah Gibson in 1881.
Deed	EBP 24	296	February 26, 1881	Robert Gibson and wife, Sarah Gibson	J.D.W. Moore, Silas Richards, and Peter Carter	0.25 acre in trust for building a schoolhouse and place of worship for the use of "the colored people of this community."
Deed	EBP 22	62	January 22, 1880	Thomas and Amanda E. Dowling	Robert Gibson	Part of the tract of land called "Carderrock." Approximately 3.475 acres (3.25 acres and 36 square perches). Gibson paid \$100.

Table 3: Parcels 528 and 501, Morningstar Tabernacle, [REDACTED], Montgomery County, Maryland

INSTR. TYPE	BK	PG	DATE	GRANTOR	GRANTEE	NOTES / COMMENTS
Deed	CKW 3148	672	1963	Edward and Irene Jones	Morningstar Lodge No. 88	0.0488-acre sliver of land for \$10, described as part of the 1885 parcel from Moore to Scott and also part of the land from Scott to Jones in 1919.
Deed	CKW 3000	646	May 17, 1962	Robert J. Crawford and Snowden Dove, Trustees for Morningstar Tabernacle Number 88	State Roads Commission	The State Roads Commission took 0.77 acres of land in the northwestern corner of the one-acre parcel (1901: Moore to Morningstar Lodge) for construction of the Capital Beltway.
Deed	CKW 2876	408	1961	Grantors listed on Plat 23509, but includes Edward Jones and Morningstar Lodge No. 88	State Roads Commission	Deed confirming the conveyance of the portion of land with hatch marks shown on State Roads Commission Plat 23509.
Deed	CKW 552	191	March 18, 1933	Morningstar Tabernacle Number 88	The Board of Trustees of Morningstar Tabernacle Number 88	\$1. The Morningstar Tabernacle has occupied this land for the past 45 years (back to 1888). A meeting was held to form a non-profit corporation and transfer the land to them. This transfers the land titles to the road from 1887 and the 1901 one-acre parcel.
Deed	PBR 282	401–402	August 12, 1919	Cyrilla Scott	Edward and Irene Jones	4.5 acres of land, as described in the 1885 deed from Moore to Scott.
Deed	TD 17	494	September 7, 1901	John D.W. Moore	Morningstar Lodge Number 88	1 acre of land. \$28. References Dowels Park and [REDACTED] as boundaries.
Deed	TD 17	493–494	December 28, 1887	George and Sarilla (also seen as Cyrilla) Scott	Morningstar Tabernacle Number 88	\$15. Part of a tract of land called “Carderrock,” sold to George Scott by J.D.W. Moore. Forming an 8-foot-wide road.
Deed	EBP 35	209	April 2, 1885	J.D.W. Moore and wife	George Scott	\$114 for 4.5 acres, known as Lot No. 2, part of a tract of land called “Carderrock” fronting on Conroy Road that Moore bought from Charles Clagett in 1884.

Appendix C

Appendix B: Death & Burial Information, Morningstar Moses Cemetery

9^aZ]VUSi B' FRZXYZd]V'gYZd]Vi]a6iRY`T^#

9bVRdVQRbTY+)+4 eaURdVUSbeRb%+)+* **eaURdVQ+2(+***

JYVC`b_Z_XcdRb` 11 C`cVc 9V^VdVbZc]`TRdVRU[RTVd`ddWW`e_URdZ`WdYW`b^Vb
J`UXVpC`cVc >R]]`WVWfV_B`T`c H`RUZ_9RSZ_@`Y`CRbi]R_U CV^SVbc`WC`b_Z_XcdRb
D` 11 `WdY`EbUVbWC`cVc`R_7WbZTR`VbZTRSV_Vf]V_d TZVdSV]`_XVW VZdYVb
8RadZc`b CVdY`UZcaZcT`aR]`! C`;' OZ`_#TYebTYVZcdYVR`R'

JYVW`]]`gZ_XcR]ZcdWdY`c`SV]ZVfVdUSVSebZVU_dYV`VdVbR_UdYV`ebTVW`dYRd
_R^V` C`cd `WdY`c`SebZVU` not YRfVR_VhdR`Rb`Vb`_dYV`ZbbZR]ZdVJYZc]ZcZc
T`_cdR_d]Mf]fZ_XRcgV T`_dZ_eV` T`_WZbSebZR]`Yb`eXVVRdVVT`bUc`SZdeRbZNR`CUVRdY
_dZTVd`^V`_R^VcYRfVT`^V Wb`^UVcTV_UR_dPlease contact author at email above to
note errors or make additions.

Note: Due to COVID restrictions, the Maryland State Archives in Annapolis and area Family History Centers have been closed since March 2020, making it difficult to access original MD or DC death certificates. When restrictions loosen, these death certificates will further confirm burial information that newspaper death notices, obituaries and other sources have indicated.

BURIAL LIST3 JYVTEbbV_ZcdWdY`c`aV`a]VSV]ZVfVdUSVSebZVU_dWC`cVc 9V^VdVbi
RbV_ZcdVSV]`g_Z_TYb`_`]XZTR]UVbWSebZR]JYVi gVbVZUV_dZWZRUWVZTZR]Y
9VbdZWZTRVYgcRaVbVRdYD`dZTVb ESZdeRbZVbRdZ_dVbVgcR_U(`bVWVbV_ZTVV
*Morningstar Tabernacle No. 88 of the Ancient United Order of the Sons and Daughters,
Brothers and Sisters of Moses: Minutes Book, 1904-1914%* `g_ cZ^a]i RcMinutes Book'
JY`cVgZdYXbRfVRb`Vbc`RcUVcTbZSXURddVVTdZ`TR]]VUH7L; C7HA;HI% RbV`dVU
gZdY`\$#

- *' @R^VQ`RdVcVZVUIVad*12-' **Early landowner, deed JA 1/76.** 8ebZVU_C`cVc >R]]%
IVadV^SVb%*12-%DC Death Record W`e_UZ_:9 IV]VTdVRdYR_U8ebZR]Z_UVh0/2 &
2/)%<B <Z]^De^SVb3+,.21)% HVWU3T_21)01%RTTVccVZR7_TVcdbiT`^"cVV
RddRTYVUe^V_d#
- +' m<R_ZVQR`c`R`XVZhdVVU`ZVU D`fV^SVb*122 `WcVfVbSeb_cbVTVZfVUZ]V
g`bZ_XZ_dYV`CZ]V<e]]VbY`^V Z_I^VbVd>VZXYdc% :ReXYdVbW**Lloyd Jackson%**
early landowner, deed EBP 35/105' mK_UVbdR`gZ]bV`^fV dYVbV^RZ_d`dYW`^V`W
YVWRdYVbWgc7bdZT]V**the Evening Times%** D`f *122%#'
- ,' IR^eV]9`aVb`UJZVU<VSbeRb*2)/' m7S`ed2`pT]`T`dYV`bUTR]]VUH8` IR^eV]
9`aVb Wb`^YVbV`c`^V e`_`g_ a]RTV`n<e_VbRd`SVRdD`*) >R]]k FR]]SVRbVbc
MR]dVGRc`_%CZ]W`bUfV%>V_bi9RbdVbV%Z]ZaRT`c`_@bTZ]RdHZTYRbU`Rb]Vc
>RbbZcMinutes Book`Z^RXV` ! ,* `W*--4 MD Death Certificate on file at MD State
Archives, Annapolis, MD.
- ' JY^Rc >RbbZ`gZVU@e]i*2)0%SebZVU`cVc 9V^VdVb@e]i*)' Minutes Book, Z^RXVc
0/&00%) `W*--4 MD Death Certificate4Ä:ZcdbZTW9]e^SZR:VRdYc`40-&*2/%ÄRdRSRcV
gZdY`^RXV`familySearch

- "Yddac3((WR^Z]icVRbTY''bX(Rb\3(/*2),(*3*3<0J:3RTTVccVUCRbTY+))#%JY'^Rc
>RbbZq0% @eJ*2)0%ZcdbZTbV9']e^SZR%K_ZdVIdRdVcZdXbVWVbV?:TV9D *0--0,%
:ZcdbZTbVVT'bUQV_dVbVRcYZ_Xd:'9'4 <>B ^ZTb'WZ]f%***.%,'
' :bTRc 7 " VVRfZc#@_ VdZVU IVa *2)05 25 MD Death Certificate (1909)4Minutes
Book, Z^RXVl 'W*-- '*2)05#'
' @R @_ VdZVU :VTV^SVb*2)0%SebZVU'cVc 9V^VdVbIVT' *1' Minutes Book^Z^RXV
.0 'W*--'
0' IZ]RdHZTYRbUWZVU ETd*2***We_VbR]VU_VcUR]f *5 15' 2nd husband to Lucy Ann
(nee) Holmes Gibson, daughter-in-law to Sarah Gibson. Washington Bee%* D'f *2***%
.4 Minutes Book^Z^RXV)0 'W*--'
1' @V_ZRc' %UZZVU<VSbeRbf*2+' Minutes Book, Z^RXV*** 'W*--'
2' B]iU>Z_V%ZVU@e]i*2+' Minutes Book, Z^RXV%*. ! **0 'W*--4 m:VRdYc
HVT'bUUVU%ening Star% @eJ*2*+%4HVT'bUVC Deaths, 1874-1961 RTTVccVZR
<R^Z]iIVRbTY''bX'
)' EcTRb_Z_V%ZVU CRi *2*-%V]VTdb'TedgVZ]g'b\Z_X'_ MRcYZ_XdHRZ]gRl
;]VTdbZT^aR_i TRb'CRbbZVU @VccZ'eRbbZcm;]VTdbZY'T\<RdR]%ening Star%+2
CRi *2*-%+4HVT'bUVC Deaths, 1874-1961 RTTVccVZR<R^Z]iIVRbTY''bX'
**' @R^Vc' 9bRgW'bUZZVU* CRi *2+) %RXV' I' 'W=V'bXVbRgW'bU'8ebZVU'- A09RSZ
@'Y_C' MD Death Certificate. Added 3/29/21.
*+' \$BVgZ&' 8eb]Vi%b' %UZZVU IVa *2+) I;; <=H7L; C7HA;H% 8;BEM' MD Death
Certificate.
, \$9YRb]V@'_ VcZVU D'fV^SVb*2*+ IJED; "5#C7HA;H ?D9;C;J;HN' I;; 7
=H7L; C7HA;H 8;BEM' MD Death Certificate'
*-' IRbRYZSc' %UZZVU<VS*2+', Benefactress of Gibson Grove, donating land for early
school for African American children and Gibson Grove A. M. E. Zion Church. Early
landowner, deeds EBP 22/61, EBP 24/296, & TD 4/291. :ReXYdVbW@' Vc_dVbR_U
e__g_ ^dYVb'MD Death Certificate.
, :RZci=' " VV@'_ Vc#Vbc' %UZZVU7eX *2+', :ReXYdVbWH' SVb@'_ VR_U;^^R
MR]Vb'>ecSR_U@'Y>' ?fVbc'_ ' HVT'bUVC Deaths, 1874-1961 RTTVccVZR
<R^Z]iIVRbTY''bX'
,/ <bR_TVMR]VbUZZVU:VT *2+-' Caretaker of Clara Barton's Glen Echo home & Red
Cross HQ in 1896-7. :ReXYdVbWe__g_ C'dYVb C'dYVb&Z_&Rg' SVbdb ;^^R
9' @'_ Vc'MD Death Certificate.
*0' \$BRebRZbXZ_ZR@V_ZVb]Vi%UZZVU<VSbeRbf*2+/%SebZVU<VS'Z 9RSZ @'Y_C'
:9 :VRdYHVT'bUZR7_TVcdbi'T'^ CRbbZVUBVgZ&' 8eb]Vi%b' 8KHB;N MEHD
9ED9H;J; C7HA;H ?D9;C;J;HN' I;; <=H7L; C7HA;H% 8;BEM' HVT'bU%
DC Deaths & Burials, 1840-1964 RTTVccVZR<R^Z]iIVRbTY''bX'
*1' 7]ZTVC' @'Y_c' UZZVU IVa *2+/' MZWWR^eV] I' @'Y_c' '<e_VbRWb'^]RdV
bVcZUV_TVbfZTVRd=ZSc' =b'fV 9YebTYR&RSZ @'Y_8bZUX':VRdYD'dZTV%ening
Star, +0 IVa *2+/%24HVT'bUVC Deaths 1874-1961 RTTVccVZR<R^Z]iIVRbTY''bX'
*2' @e]ZRVgRbUZZVU D'f *2+ / Z>R]]c>Z]]%7' <e_VbRWb' =ZSc' =b'fV 7C;O
9YebTY%ZSc' =b'fV%C:' :VRdYD'dZTV%ening Star%, D'f *2+/%04VA Death
Certificate.
+)' >V_bi9RbdVbUZZVU* @e_V*2+0' Early landowner, deed EBP 35/45. I'_ 'W9YRb]Vc
9RbdVR_Ue__g_ ^dYVb'<e_VbRWb'^=ZSc' =b'fV 7C;O 9YebTY'MD Death
Certificate4:VRdYD'dZTV%ening Star, +- @e_*2+0%).

+* 'H'SVb@_ Vd@ UZVUETd*2+2' **Worked for Clara Barton for years.** I_ 'WH'SVbR_U ;JzRSVd@_ VcF]RTVW8ebZR]b HV^ fR]3 *)%B'UXV9RSZ_@_Y_<e_VbR]- ETd'SVb Wb^C'cVc >R]]9RSZ_@_Y_'MD Death Certificate4:VRdYD'dZTVEvening Star, + ETd *2+2%*).

++' 7_ZV9'RdVcZh'_%UZVU<VS*2,)' CRbbZVWZhdVRb]]R_U'g_Vb@R^V9'RdVc]RdVb d' FVdV:Zh'_' 8ebZVth*)%9RSZ_@_Y_@U'n'_<VS'.' MD Death Certificate.

+', :UgRbUFbZTVU%ZVU* 7abZ]*2,)' <e_VbR]- 7abZ]Rd'cVc >R]]9RSZ_@_Y_':VRdY D'dZTVEvening Star, +, 7abZ]*2,)%*)'

+-' "<bVUVbZMM#c]V]@RT'c' UZVU :VT *2,)' I_ 'WFYZ]ZU<bR_TV9bRgW'bU# @RT'c' 'Evening Star'0%/:VT *2,)%2' :9 :VRdY9VbRc8ebZR]0:VT *2,) RdmD' *) CU'n' Added 3/23/21.

+', >V]V 8' " VVfVbc' #FYZWUZXU :VT *2,)' <e_VbR] :VTRd'cVc >R]]9RSZ_@_Y_':VRdYD'dZTVEvening Star,) :VT *2,)%*). Added maiden name, middle initial and changed to correct surname spelling. 3/17/21

+' B]iU J' @RT'c' UZVU <VS*2,*' **Early landowner, deed EBP 35/105.** I_ 'W@R^Vc @RT'c' R_UCRbXRbVdV' F]RTVW8ebZR]t<VS*2,*%9RSZ_@_Y_*)' <e_VbR]+<VS Wb^C'cVc >R]]9RSZ_@_Y_'MD Death Certificate4:VRdYD'dZTVEvening Star, +* <VS *2,*%0'

+0' \$MR]]RTVCRc'_%UZVUIVa *2,*' >ecSR_Ud'=V_VfRCRc'_'<RdYVd' B'bV_j'_% =VdbbeUUVV_ZVUIY^Rc CRc'_' I_ 'W@V_ZRC'_' 8b'dYVtd' BZ]]ZAZ_c]'g% >RddVMRb_VR_UeXV_VH'cRR_UMR]dVGRc'_'<e_VbR]bZUR-IVad'Wb^D'*)% 9RSZ_@_Y_@' :VRdYD'dZTVEvening Star%IVa *2,*%*)4 HVT'bUDC Deaths, 1874-1961 RTTVccVZR<R^Z]iVRbTY'bXJED;C7HA;H ?D9;C;J;HN' I;; ;=H7L; C7HA;H 8;BEM'

+1' 7bdYebRgW'bU@b'5#ZVCRi +0%2,+<e_VbR]Wb^9RSZ_@_Y_@' ?_dVb^V_d'*)% C:' :VRdY'DZTVEvening Star, , CRi *2,+%2'

+2' 9YRb]Vd >RbbZdZVU :VT *2,,>ecSR_Ud' CRbi >RbbZc<RdYVdRc @efZVSRbbZc' ? W'b^R F'9' >RbbZc8ebZR]-^A Z 9RSZ_@_Y_'MD Death Certificate. Added 3/29/21.

.) :]]R " VV8'gV # 9bRgW'bU9ZVU @R*2,-<e_VbR]Wb^=b'f V9YebTY9RSZ_@_Y_' mMZWW]RdV@R^V9bRgW'bUn'VRdYD'dZTVEvening Star,) @R*2,-%2'

*, '=V'bXZR=V'bXZR_RV@_Vc&ed]VbUzVUCRi *2,-:ReXYdVbW;^R 9' @_VR_U gZWW9'd'_8ed]Vb<e_VbR]ZSc'_=b'fV C; 9YebTYD'*)%C:' :VRdYD'dZTV% Evening Star, 1 CRi *2,-%24MD Death Certificate'

+', "CRbi#:V]ZR" V9bRgW'bU9RbdVbZVU @R_eRb2,/ RdYVbVcZUV 9RSZ_@_Y_' MZWW>V_bi9RbdVb<e_VbR]Wb^=ZSc'_=b'fV 9YebTY9RSZ_@_Y_@' :VRdYD'dZTV% Evening Star%0 @R_eRb2,%24MD Death Certificate.

.,' :^R " VVMR]Vb#@_VdZVU @e_V2,/' **Housekeeper to Clara Barton for over 21 years and well-known local midwife to the area.** MZU'g'WH'SVb@_VcMD Death Certificate; mo7e_d;^R @_VUZVR9RSZ_@_Y_%Washington Post,) @e*2,%+.

,-' "MZ]]ZR^#bR \>RbaVbU%ZVU 7eXecd*2,/ Z F'']VcfZ]]V@' <e_VbR]Wb^H'T' 9bVV 8RadZcYebTYV_Vid'g_9' ?_dVb^V_d' JV_%CRbi]R_U'MD Death Certificate4 :VRdYD'dZTVEvening Star%2 7eXecd*2,%*** 7]c' aVbZ_dVbfZVt_UeTdVSI 7]VhR_Ub@_Vc'

.,' LZ']RmIRUZVRbbZdZVU* 7eXecd*2,/' *A gZWWCRbZ'>RbbZc<e_VbR]Wb^=ZSc'_ =b'fV 7C;O 9YebTY?_dVb^V_d'cVc 9V^VdVbi9RSZ_@_Y_@' : VRdYD'dZTVEvening

- Star%+- 7eXecd*2,% 24MD Death Certificate "cRicUZVU_7__V 7be_UVP' '# 7]c' aVb 8Vb_ZT:WV%+)).'
- ./' :b_VcdFR]^VbWZVU ETd*2,% RXV ^ _dYc+1 URic'W_RdebRTRecVc<RdYVbGgRbU FR]^Vb' C' dYVb<bR_TVeR]^Vb' 8ebZRjEUV]]' gen 9V^' D' *) " ^ZcdR\ V_R^V# _ , * ETd*2,/' MD Death Certificate. Added 3/29/21.
- ,0' BeTi 7 _ " VV^]^Vc# =ZSc' HZTYRbWZVU <VSbeRb*2,0' MZU' g' W*#B' eZc(BVgZc =ZSc' _R_U+ #IZ]RdHZTYRbUc' dYVb' Cbc' 8VbDYH' SVbc' _R_UCbc' IRbRYCRc' _ "cVV ., SV] g# 8ebZVU/ <VS' <e_VbRWb'^=ZSc' _=b'fV 7C;O 9YebTYZ_dVb^V_CdcVc 9V^VdVbi':VRdYD'dZTVEvening Star%&/ <VS*2,0%*)4 MD Death Certificate "cRic mgYZdVnHZTYRbUcR dLmRXd\ _'g_n# FVbZ]]iBZVfcRfURXYdVW<bR _F' R_U BZ]]i9' C' bV Id' _V#mE]UBeTin gRc S' b_Z_d'c]RfVbi4' bVU W' WVRW^Z]RcUZU UReXYd8VbDYR_*2+)c_R_U)c' FVbc' _RT'^^e_ZTRdZ' gZdYFRZXYMZd]V%CRb +)+)'
- ,1' CRbi :]ZjR " VV@ _ Vc#RbbZdZVVT' .%*2,2' :ReXYdVbWfVdV@ _ VcZU' g 9YRb]Vc : ' >RbbZcJg' UReXYdVCRbi : 'bcVi "9VURbVZXYdc%%@VccZVVi ",/*) F Id' DM#4. c' c' <e_VbRfZSc' _=b'fV 7C;O 9YebTYSebZRQ' cVc 9V^VdVbi':VRdYD'dZTV% Evening Star, 1 <VSbeRb*2,2%*,4 MD Death Certificate "cRicUZVU_FbZ_TV' bXV0' _ Rd bV]RdZfVcpV#'
- ,2' \$BVH'i : 'fV' _=bRfVcd' _V_UZTRdVbY'd'cSi : ' _R AZ_XRd Yddac3((ggg'WZ_URXbRfV'T'^(^V^'bZR])(+1+*.-.1(jVb'i&U8'fV +) ETd'SVbWZVUCRb *2-)' MZWWRdbZTW' <e_VbRWb'^=ZSc' _=b'fV 7C;O TYeTY4Z_dVb^V_D#SVb JV_%C:' ESZdeRbiEvening Star, / CRb*2-)%*', MD Death Index "T' _WZb^Z:K :VRdY Rd'd' CRbipc>'caZdR]WVT'bU)1.2+ #' =H7L;IJED; ?D9;C;J;H N' I;; > =H7L; C7HA;H 8;BEM'
-)' @e]Zb'TVddBR_VWZVU CRi *2-)' MZW@R^VBR_V'<e_VbRWb'^<bZV_UcYZa 8RadZcdYebTYZ_dVb^V_ZSc' _=b'fV%C:' :VRdYD'dZTVEvening Star%&/ CRi *2-)% *_'
- *' >Vb^R_IdVgRbdWZVU 7eXecd*2-* RdbVVU^R>'caZdR]T' _ 'WMR]dVR_U7X_Vc IdVgRbd<e_VbRWb'^=ZSc' _=b'fV C; 9YebTYZ_dVb^V_D' *) 9V^VdVbi':VRdY D'dZTVEvening Star%& IVa *2-*%*,'
- ++' JY'^Rc >' 9'aVb^UJZVUJVa *2-+ Rd=V'bXVd'g>'caZdR]'<e_VbR]Vad'*+ Wb'^=ZSc' _=b'fV 9YebTY9RSZ @ _Y_C% ' :VRdYD'dZTVEvening Star%&* IVad*2-+)%*,'
- ' IR^eV] MZ]]ZR^dZVU <VSbeRb*2-,' >ecSR_Ud' ;e]ZV" VVdVgRbdWZ]]ZR^c' <e_VbRQRbTY+ Rd+ a'^%D' *)%CRbi]R_UWb'^dYVZSc' _=b'fV CVdY'UZ0YebTY' **Interment church cemetery.** :VRdYD'dZTVEvening Star%&1 <VSbeRb*2-,%+*'
- ' \$@R^Vc' 9'aVb' CRbTY+)%*2-, ' IdVV]OZ_TF]RdRWWZdVU_TbVdVRbVb' MD Death Certificate' C7HA;H ?D9;C;J;HN' I;; = =H7L; C7HA;H 8;BEM'
- ' >RjV]B'bbRZ_FYZWUWZVU @e_V2-, ' <e_VbR]e_V0 Wb'^=ZSc' _=b'fV C; 9YebTY' ?_dVb^V_d'cVc 9V^VdVbiD' *)%CRbi]R_U':VRdYD'dZTVEvening Star%&- @e_V2-,% *_',
- /' JYV^U'bVdVgRbdWZVU @e_V2-- RdbVVU^R>'caZdR]'>ecSR_UWMRbRYdVgRbd' <e_VbR]e_V+ Wb'^=ZSc' _=b'fV C; 9YebTYD' *)%CRbi]R_U'**Interment church cemetery** :VRdYD'dZTVEvening Star%&* @e_V2--)%*'
- 0' HRi^ _U >RbbZdZVU@e]i,%*2--' <e_VbRWb'^=ZSc' _=b'fV 7C;O 9YebTY'?_dVb^V_d D' *)%CRbi]R_U':VRdYD'dZTVEvening Star%& 7eXecd*2--)%*,4 MD Death Certificate "cRicUZVU_7be_UVP' '# 7]c' aVb]ReU9]ZWWd+)]%

- 1' 7_ZV" VMRbWZV]RbbZd9ZVITV^SVb*1%2--' MZWVHVf @R^V7]SVbd7]]V_#
>RbbZc<e_VbR]ZSc`_ =b`fv 7C;O 9YebTY'?_dVb^V_d`' 11 C' cV9V^VdVbi9RSZ_
@`Y_@`' :VRdYD`dZTVEvening Star, +) :VTV^SVb*2--%*-4 MD Death Certificate'
- 2' H`cRCRC`_%UJVU@R_eRb2-1' :ReXYdVbW]RdV`RYR_U@V_i CRc`'_ <e_VbR]Wb`^=ZSc`_
Wb`^=ZSc`_ =b`fv 7C; 9YebTYD`' *)%CU' ?_dVb^V_d`cVc 9V^VdVbi':VRdYD`dZTV%
Evening Star%0 @R*2-/%2'
- .)' MR]dVGRc`_%UJVU* 7eXecd*2-/ RXV RdYZbVcZUV_TRSZ @`Y_@`' >ecSR_Ud`
IRbRY`_V=ZSc`_#CRc`'_ I`_ `WD`RYCRc`_R_U@V`_Zb`^c`' <e_VbR]Wb`^=ZSc`_
=b`fv 7C;O 9YebTYD`' *)%C:' ?_dVb^V_d`cVc 9V^VdVbi':VRdYD`dZTVEvening
Star%8, 7eXecd*2-/%24MD Death Certificate.
- .*' 9]RbV_T]UgRbU=ZSSc%@bU]ZVU IVa *2-0 "RXV5#RdYZbVcZUV_TV9RbfVH`RU9RSZ_
@`Y_@`' ?_dVb^V_d`cVc 9V^VdVbi9RSZ @`Y_@`' :VRdYD`dZTVEvening Star%+1
IVa *2-0%+0' FVfVXXf=ZSSc%)).' MD Death Certificate.
- ./' BiUZR`_V8eb]Vi#:]ZVb%UJVU CRi *2-1' <e_VbR]Wb`^=ZSc`_ =b`fv 7C;O TYebTY%
D`' *)%9RSZ @`Y_@`' ?_dVb^V_d`cVc 9V^VdVbi':VRdYD`dZTVEvening Star%8/ CRi
*2-1%a.'
- .,' FYZ]Z@RTc`_U]ZVU @e]i*2-1 RbVcZUV_TV9RSZ @`Y_@`' <e_VbR]dY=ZSc`_
=b`fv 7C; 9YebTY9RSZ @`Y_@`' Early landowner, deed EBP 35/105. :VRdY`dZTV%
Evening Star,) @e]i*2-1%*4MD Death Certificate.
- .-' :bZc IdVgRbdU]ZVU* <VS*2-2' :ReXYdVbW]MR]dVb_U7X_VcdVgRbd<e_VbR]dYV
=ZSc`_ =b`fv CVdY`UZ9YebTYD`' *)%CU' Interment church cemetery':VRdYD`dZTV%
Evening Star%+, <VS*2-2%*-'
- .. ' >VbSVbdZ]Seb>Z_ \V%U]ZVU @e`V*2-2' I`_ `W@VccZWV>RbbZd#_Vi' 8ebZR]c`cVc
9V^VdVbi9RSZ @`Y_@`' :VRdYD`dZTVEvening Star%80 @e`*2-2%*+4MD Death Certificate'
- ./' "MZ]]ZR`HeU`_aY?fVbc`_%U]ZVU @e]i*2-2%WVfV_B`T`c H`RU'?_dVb^V_d`cVc
9V^VdVbi9RSZ @`Y_@`' :VRdYD`dZTVEvening Star%+. @e]i*2-2%*+4MD Death
Certificate. 7]c`_ aVb8Vb_ZT:VfV%+)).'
- .0' CRbi Rebecca " V=Z_ \V#RbbZd9ZVITabZ]+-%*2.)' MZWVW;]Z[R>RbZc%^ d`
BVcdV`RbbZcZcdVW?UR@RTc`'_ <e_VbR]ZSc`_ =b`fv 7C; O9YebTY'?_dVb^V_d`cVc
9V^VdVbi':VRdYD`dZTVEvening Star, +/ 7abZ]*2.)%*+'
- .1' =V`bXV>RbbZd9ZVITeXecd+.%*2.)' <e_VbR]ZSc`_ =b`fv 7C;O 9YebTY'?_dVb^V_d`
C`cVc 9V^VdVbi':VRdYD`dZTVEvening Star, +0 7eXecd*2.)%*,*4 MD Death Certificate.
- .2' :UgRbUB`=ZSc`_%U]ZVU :VTV^SVb*2.*' <e_VbR]Wb`^=ZSc`_ =b`fv 7C;O 9YebTY`
?_dVb^V_d`cVc 9V^VdVbi':VRdYD`dZTVEvening Star%+* :VT *2.%%*+4MD Death
Certificate.
- .)' IRbRY`_V=ZSc`_#CRc`_%UJVU ETd`SVb*2.+%RXV,' <e_VbR]ETd`*0 Wb`^=ZSc`_
=b`fv 7C;O 9YebTYZ%_dVb^V_d`cVc 9V^VdVbi':VRdYD`dZTVEvening Star%8- ETd`SVb
*2.+%*4MD Death Certificate.
- /*' CRbZ`_>RbbZd9ZVU :VTV^SVb*2..' >ecSR_Ud`_*#LZ`]RmIRUZn9bRgW`bR_U+
7^R_UR5' <RdYVbIRUZVb`cc%&RjV]CTAZ`_Vi%VbSVbd%VcdR_UBVH`i>RbbZc`
I`_gUV`_ <e_VbR]`^V%H`TfZ]]V` <e_VbR]ZSc`_ =b`fv 7C;O 9YebTY`Interment
church cemetery':VRdYD`dZTVEvening Star%+- :VT *2..%8&*)' 7]c`_ aVb9]ReUV
mle`_in 9]ZWWd+))%
- ./+ CR^ZV" VVdVgRbU#ic`_%UJVU @R_eRb2.1' MZWVW@`Y_@`' >ic`'_ <e_VbR]d
9YZ`_ <e_VbR]`^V_Z_7b]Z_Xd`_E8' Interment Jan. 27 at Gibson Grove Cemetery'

- :VRdYD`dZTV~~Evening~~ Star⁰+. @R*2.1%*)4 Virginia Death Certificate accessed via Ancenstry.com.
- /,' "@`Y_HRi^`_U ?fVbc`_%ZVU@R_eRb2.2%`WVfV_B`T\c H`RU' ?_dVb^V_@`cVc 9V^VdVbi9RSZ_@`Y_@` :VRdYD`dZTV~~Evening~~ Star⁰2 @R*2.2%-/' 7]c` aVb8Vb_ZTV :`fV%+)).'
- /-' ?UR]]V " VV@RT\c` #fV%UZVUj CRi *2/* RdbVcZUV_TV/ IVfV_B`T\c H`RU9RSZ_@`Y_@` **Wife of Lorenzo Snowden Dove, Morningstar Moses trustee.** <e_VbRWb`^`=ZSc`_`=b`fV CVdY`UZ0YebTY9RSZ_@`Y_@`U' ?_dVb^V_@`cVc 9V^VdVbi'Snowden Funeral Home arrangements' :VRdYD`dZTV~~Evening~~ Star, */ CRi *2/*%+1'
- /.' EUV]ZR_VV@`_Vc#ZSSc%ZVU7abZ]*2/,' :ReXYdVbWH`SVdR_U;^R 9' @`_Vc7]c`]`TR]`ZUGZWV`e_VbRWb`^H`T` 9bVV`8RadZc0YebTYZ_dVb^V`C`cVc 9V^VdVbi' :VRdYD`dZTV~~Evening~~ Star⁰0 7ab *2/,%+/'
- // \$H`U_ViMYZdV2+- 1 *2//` =bR_ZdCRb\Vb'PH`U_Vi' MYZdVZV@R_eRbi1%*2// Rd YZ&^V +, 9RbfVH`RU9RSZ_@`Y_@` <e_VbRWb`^`=ZSc`_`=b`fV 7C;O 9YebTY' ?_dVb^V_@`cVc 9V^VdVbi':VRdYD`dZTV~~Evening~~ Star⁰ <VS*2//%+*Q=H7D?J; C7HA;H`?D9;C;J;HN' I;; : =H7L; C7HA;H`8;BEM'
- /0' H`SVbd` 9RbdVb9ZVU@R_eRb2/0' I`_`WCRbi :V]ZRR_U>V_bi9RbdVb<e_VbRWb`^`=ZSc`_`=b`fV 9YebTY9RSZ_@`Y_@`U' ?_dVb^V_@`cVc 9V^VdVbi' :VRdYD`dZTV~~Evening~~ Star⁰ @R*2/0%+2'
- /1' :eXV_VBV`_RbCRc`_%UZVU7abZ]*2/1 RdYZbVcZUV_IVV_B`T\c H`RU9RSZ_@`Y_% CU' >ecSR_Ud`CRbdYR` CRc`_4c`_d` BVZdR CRc`_' <e_VR]Rd=ZSc`_`=b`fV 7C;O 9YebTY?_dVb^V_@`cVc 9V^VdVbi9RSZ_@`Y_@`U' :VRdYD`dZTV~~Evening~~ Star⁰ 7abZ] *2/1%-4 MD Death Certificate' FVbZ]]iBVZfcVi%+)%g`b\VU RcUbZfVW`hd`_ViYebcd GeRbbi'
- /2' @R^V0bRgW`bU@b5#%ZVU7abZ]*2/2' <e_VbR(pRbf0YRaV' ?_dVb^V_@`cVc 9V^VdVbi9RSZ_@`Y_@` :VRdYD`dZTV~~Evening~~ Star, 1 7abZ]*2/2%+,'
- 0) \$CRbi <bR_TZc_V0bRgW`bUMYZdV2)) 1 *2/2' =bR_ZdCRb\Vb' **Was with Gibson Grove benefactress Sarah Gibson when Gibson died 1923'** FVbUVcTV_U8Vb_ZT:VfV%+)).' IJED; C7HA;H`?D9;C;J;HN% I;; 8 =H7L; C7HA;H`8;BEM'
- 0*` @R^V7(7]SVbd(7]]V>RbbZd9ZVEtd'***%*2/2' ?_dVb^V_@`cVc VcB`UXV9V^VdVbi9RSZ_@`Y_@` :VRdYD`dZTV~~Evening~~ Star, *. ETd`SV82/2%*,
- 0+` >VcdVb_V0RbdVb#RbbZd9ZVUCRbTY*20+` <e_VbRfZSc`_`=b`fV 7C; 9YebTY9RSZ_@`Y_@`4 ?_dVb^V_@`cVc >R]]9V^VdVbi':VRdYD`dZTV~~Evening~~ Star, 0 CRb*20+%+2'
- 0,' \$7]]V_MYZdV2+- 1 *20,' =bR_ZdCRb\Vb':ZVU<VS*-%*20,' P<e_VbRWb`^`=ZSc`_`=b`fV 7C;O 9YebTY?_dVb^V_@`cVc 9V^VdVbi':VRdYD`dZTV~~Evening~~ Star⁰*1 <VS*20, 0,Q IJED; C7HA;H`?D9;C;J;HN' I;; 9 =H7L; C7HA;H`8;BEM'
- 0-' BVZdR_V bZVdR`_V@Rc`_%UZVU ETd`SV820,' <RdYVb7]SVbd@`_VcC`dYVb3 B`eZcV9RbdVbZcdVb`7]SVbdM` @`_Vc? W`b`R`UVRdVb#ZVT@VR_VbVUBZTW BR_U`fVb%<e_VbRWb`^`=ZSc`_`=b`fV 7C;O 9YebTY_ETd,%%?_dVb^V_@`cVc 9V^VdVbi9RSZ_@`Y_@` :VRdYD`dZTV~~Evening~~ Star⁰+2 ETd`SV820,%-,' C: :VRdY 9VbdZWZTRdV'
- 0.' B`bV_j` Snowden :`fV%UZVU 7abZ]*20-' **Signed as Worthy Superior of Morningstar No. 88 on Deed 552/191 (dated 18 Mar 1933).** <e_VbRfZSc`_`=b`fV 7C;O 9YebTY' ?_dVb^V_@`cVc 9V^VdVbi9RSZ_@`Y_@` :VRdYD`dZTV~~Evening~~ Star⁰) 7ab *20-%-,' 7]c` aVb8Vb_ZT:VfV%+)).'

0/' =V`bXVbRgW`bU9ZVU` CRbTY*20. RdVcZUV`T,V IVfV`B`T`c H`RU' <e`VbR`d
 =ZSc`_ =b`fV 7C;O 9YebTY"?_dVb^V`d`cVc 9V^VdVbi':VRdYD`dZTV`Evening Star*%,
 CRb*20.%-,' 7]c` aVb8Vb_ZT:V%+)).'
 00' :]cZV9`aVb EWWe`dZV`U :VTV^SVb*20.' <e`VbR`dVbZTV`UR`ZSc`_ =b`fV 7C;
 9YebTY"?_dVb^V`d`cVc 9V^VdVbi':VRdYD`dZTV`Evening Star*%2 :VT *20.%*1'
 01' BV]ZR`VVRbVbZTV`Vbc`DVg^R`%U`ZV`U`* CRb*200' <e`VbR`dVbZTV`UR`ZSc`_ =b`fV 7C;O
 9YebTY9RSZ`@`Y`U4?_dVb^V`d`cVc 9V^VdVbi':VRdYD`dZTV`Evening Star, +- CRb
 *200%' Virginia Certificate of Death accessed via Ancestry.com' =bR`UUR`eXY`dVb`V`bi
 ! :V]ZR`RbVb`
 02' ?bV`V`]SVb`dVbRgW`bU`FVb8Vb_ZT:V%+)).' MZWW`V`bXVbRgW`bU`ZVU*22.'
 HV^`fVUWb`^`]Zcd`(*`(+` aVbUVcTV`UR`d`g]VUXVR`U`Washington Post`UVRdYdZTV`
 URdV`U`D`f`*22.%8.' 8ebZV`R`BZ`T`]FRb`9V^VdVbi`T`fZ]]V`%:'
 1)' B`bV`j`MYZ`dV`FVb8Vb_ZT:V%+)).'
 1*' 9]RbV`T`ZSSc`%dZV`U`/5`FVb`FVXX`f`ZSSc`%)).'
 1+` :]cR`B`@`_`V`d`FVb`FVXX`f`ZSSc`%)).'
 1,' 7^R`UR`"CR`Ui5#>RbbZ`dV`ZV`U`15`FVb`9]ReUV`9]ZWWD`+))%
 1-' :UgRbUFR`^`Vb`SR`Si`#`%VbZ`_dVb`fZV`g`%hR`Ub`@`_`Vc`%)*)'
 1.' BV`_Rb`UCRc`_5#`%VbZ`_dVb`fZV`g`%hR`Ub`@`_`Vc`%)*)' ;eXV`VBV`_RbU(BV`_R`b`V`V`
 CRe`_ "S`dY`R`^`V`bUVb`c`_bVT`bUg`Rc`c`_`W`eXV`_VCRc`_R`_URbbZV`U` ;]J`RSVdY`
 >RbbZ`dV`Re`"WFVdVb`IdV]]R`RbbZc`
 1/' LZfZVH`dV`b`VbZ`_dVb`fZV`g`%hR`Ub`@`_`Vc`%)*)' HV^`fVUWb`^`]Zcd`(*`(+`
 :VdVb^Z`_VUd`aRbW`= T`^`e`Zdi4`RY`^`V`g`_Vb`bZXZ`R`Vb`8bRjZ`gY`]ZfVU`
 9iabVcc`=b`fV`BR`_V`VR`dV`V`dVb`i'

BZ[V]iearly SebZR]c`_ T`_WZb^Rd`bMT`bU&Vd#3

10' H`SVb`d`ZSc`_`%b`_>ecSR`_U`WSarah Gibson, benefactress of Gibson Grove community'
 MZ]]RUV+- IVadV^SVb*12-%ab`SRdV`U`<VSbeRb*12. "C`_dX`^`Vbi9`e`_di`%CRbi]R`_U`%
 MZ]]8`^`_ =9: +(+`/##
 11' BVgZc(B`eZeZSc`_`%U`ZV`\$VW`b`V2.' I`_`_`WH`SVb`d`ZSc`_`Ib`R`_USarah Gibson,
 benefactress of Gibson Grove community' *A`YecSR`_d`BeTi`7`_>`]^`Vc`R`_UWRdY`dVb`
 dYbV`MYZ]]UbV`BeTi`b`V^RbbZV`U`*12.%d`IZ]R`dHZTYRbU`V`_cecR`_U`9`CRbbZRXV`
 HVT`bUc`
 12' MZ]]ZR`CRc`_`%aVbZ`_dVb`fZV`g`%hR`Ub`@`_`Vc`%)*)' ,(+`(+`3`9`e]U`SVb`VWVbVd`TV`
 Sb`dYV`W`>V`_bi`R`_UMR]]RT`CRc`_`_`^`V^`SVbc`_`WC`_b`Z`_Xcd`R`RS`D`' 11#`DC`Death`
 Certificate records`cY`g`UVRdY`_`(@e`*2). `WT`RTY`^`R`MZ]]ZR`CRc`_`%RXV`)%Rd`/
 FZVb`T`V`DM`8`b`Z`CRbi]R`UR`U`SebZV`H`ZC`_dX`^`Vbi`9`n`"Evening Star, .`@e`
 *2).%`/#`Morningstar Minutes Book`YR`b`VWVbVR`T`@e`V`-%*2). ^V`VdZ`dY`R`h`k`c`]UR`
 XbRf`R`_UYRU`_d`bVTVZf`RU`i`^`_Vi`_Wb`^`8b`_>V`_bi`CRc`_`n`"UZXX`d`R`XV`+`ed`_W`
 --#`C`fVU`d`_dY`Zc`VTdZ`_`(+2`(+`'

GRAVE MARKERS3 ;ZXYd1#V`_XbRfV`URb`VbCZ`_dY`TV^VdVb`VhZcW`_bYWW]]gZ`_X
 aV`a]V`_`dV]gZdY`\$`RS`fV#3
 R# 9YRb]V@`_`V`d`V`ZV`U`_D`fV^SVb*2+*`Id`_V5CRb`Vb`

S# CRbi <bR_TZdV%2) 1 *2/2' =bR_ZdCRb\VB' "CRZUV_R^V9bRgW'bU'Was
with Sarah Gibson (Gibson Grove benefactress) when Gibson died 1923' FVb
UVcTV_U8Vb_ZT:V%+)).'
T# 7]]V_MYZdV%2+. 1 *20,' =bR_ZdCRb\VB':ZVU<VS'*(-%*20,' P<e_VbRWb'^=ZSc'_
=b'fV 7C;O 9YebTY?_dVb^V_d'cVc 9V^VdVbi':VRdYD'dZTVEvening Star%1 <VS
*20, 0,'Q
U# H'U_ViMYZdV%2+- 1 *2// =bR_ZdCRb\VB'PH'U_Vi' MYZdVZV@R_eRbi1%2//
RdYZ^'^V+, 9RbfVH'RU9RSZ_@'Y_@' <e_VbRWb'^=ZSc'_ =b'fV 7C;O
9YebTY?_dVb^V_d'cVc 9V^VdVbi':VRdYD'dZTVEvening Star% <VS*2//%+*Q
V# MR]]RTCRc' %S'b_CRI *--%*12+%UZYVad' *%2,*' M'b_T'_TbVdVRb\VB'
Husband to Geneva Mason. P<e_VbRWb'^D' *)%9RSZ_@'Y_@' :VRdYD'dZTV%
Evening Star% IVa *2,%2'Q
W#?_B'fZ_XHV^V^SbR_TWdY8eb]Vi <R^Z]i' BVgZ8eb]Vi%RdYb'\$\$@V_8eb]Vi%
C'dYVb'M'b_T'_TbVdVP\$BRebRZbXZ_ZR@V_8eb]Vi%UZYU <VSbeRb*2+/%
SebZVZ<VS'Z_9RSZ_@'Y_@' :9 :VRdYHVT'bUZR7_TVcdbi'^' CRbbZVdU
BVgZd' 8eb]Vi%b'Q
X# @R^Vc' 9'^aVb' CRbTY+)%*2-,' IdVV]OZ_TF]RdRWWZdVU_TbVdVRb\VB'
Y# BVH'i:'fV' =bRfVcd'_Z_UZTRdVbY'd'cSi :'_R_AZ_XRd
Yddac3((ggg'WZ_URXbRfV'T^ (^V^bZR](+)+*.-,1(Vb'i&U8'V +) ETd'SVbUZYU
CRb*2-)' MZW8WRdbZTW' <e_VbRWb'^=ZSc'_ =b'fV 7C;O TYebTYZ_dVb^V_d#
De^SVbJV_%:' ESZdeRbiEvening Star, / CRb*2-)%*,4 MD Death Certificate,
confirming DC Death Record #40859.)

FURTHER BURIAL RESEARCH ?_YV821, S''\ *History of the Nineteenth-Century Black Churches in Maryland and Washington, DC*%a ./# 9]Rb\VPdWZ_RRbRXbRa'b'fZUVR]ZcdW
mdYVcVdRS]V^SVbcgY' YV]aVU SeZ]dYZYebTYRfVaRcVU_'n JYVRS'fV]ZcdR]bVRUi
T'_dRZ_dYWW']]gZ_XYV^V_dZ'_VU7bdYe9bRgW'bU8b'H `gUV_:'fV4 IRbRY=ZSc'_4
IRbRYCRc'_4;eXV_VCRc'_47^R_UR>RbbZc4VcdVbRbbZd4_U7]]V_MYZdV8ed 9]Rb\V]Zcdc
'dYVbcJY'cV]ZcdVU]'g UVcVbfVbV bVcVRbTYRcTVbdRZ_V8ebZR]]TrdZ'_c'

R# FVRb9''aVb
S# <]'bV_TVb'cc
T# ;]]R :V_d
U# B'eZcV=bRi
V# B'eZcV@'_Vc
W#BV'_RbCRc'_
X# ;b^R_CTAZ_Vi
Y# ;]ZcVEWWedd
Z# 8VbdZV IYZV]Uc
[# @'YIYZV]Uc
\# ;]]R_MZ_UVRb
]# @e]ZVZ_UVRb

?_RUUZdZ'_%

- 2)' CRbi 9'RdVgRc R_Z_dVXbR^SVb`WdYWRb]fZSc`_ =b`fV 7C ;O 9YebTYR_UZdc
 9YbZcdZR_UVRf`bI`TZVdi' IYVUZVZ_*2)/ R_UYVb_VgcaRa`VUVRdYdZTVRic`cYVgRc
 SebZVZ_dYVT`d]R_UT`^e_Zdi' >VbRTdeRUVRdVbZVZTRd Ra`]Zc^Ri TJVRda
 gYVdYVYZZcdbeVb R_Vbb`b'BZcdZ_XCRbi 9'Rdc`We_VpRCRb*2)/ Scotland'
President of Christian Endeavor Society of Gibson Grove AMEZ Church. :VRdY
 D`dZTV`*Evening Star*% CRb*2)/%*,'
- 2*' 9YRb]Vd' 8b`g_%UZVU+ <VS*2+2' <e_VbR]- <VSWb`^C`cVc>R]]D'' *) RTT`bUZ_dX
 :VRdYD`dZTV`*Evening Star*^+ <VS*2+2%a' >`gVfVb%C: :VRdY9VbdZWZTR`WZRC:
 IdRdVbTYZfV`% Ra`]Zc%C: Z_UZTRdVd]RTVWSebZR](bVR] RchZfVb`RU%:'
 8`dY 9YRb]Vd' 8b`g_ "UZV*2*+`W=ZSc`_ =b`fV R_UdbecdVWMYZdVpRSVb_RT]V'
 ,2 `WEbUVbWC`cVc R_U9YRb]Vd' 8b`g_ gVbVSebZVRdYVZVbH`RUC`cVc 9V^VdVbi%
 RcVT`_UTV^VdVbW`ZdcV^SVbc`g_VUSi MYZdVpRSVb_RT]V' ,2 `WJV_]Vid`g_'

Appendix D

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
1	1	N/A	Marker (Headstone and Footstone)	Sandstone	(Headstone) 35 cm [out of the ground]	(Headstone) 25 cm wide x 14 cm thick	196 cm between the two stones	East, West	AZ	3/24/20	Two small, embedded sandstone tabular markers.
2	1	James F Cooper March 20, 1943	Depression and marker	Concrete	47 cm	34 cm	3 cm thick	West	AZ	3/24/20	The copper or bronze plate, is corroded and appears blue in color. Stone has fallen over. Possibly not an original location. Concrete headstone, with inscription etched in alloy plate. The headstone is facing west, and has fallen over towards the east, down slope. Headstone lying flat on his back, with the inscription facing upwards. Falls within a round pit, possibly associated with burial.
3	3	N/A	Marker	Granite	9 cm	20 cm	25 cm	N/A	AZ	3/23/20	A flat, sunken stone that may serve as a headstone. Difficult to tell whether it is in situ, but sits sunken in the ground.
4	4	Leroy Dove, Oct 20 1910, Mar 4 1940	Marker	Marble	42 cm	20 cm	4 cm	East	AZ	3/24/20	Difficult to tell where the exact placement would have been, but assumed to be very close to current location, due to the presence of both headstone pieces. Chiseled flat on all sides. Fine-grained. Located approximately 2 meters from the southern edge of the property. The Headstone is broken, both fragments lay next to one another. The measurements are of the whole shape combined (as if the headstone was whole).
5	1	Rodney T. White, 1924-1966	Marker	Granite	27 cm	57 cm	Sunken	Southeast	AZ	3/23/20	Headstone is legible and readable. About 40 ft SE from Allen White, and 45 ft west from Mary White. Same headstone appearance as Allen and Mary White. Located to the east of what looks to be a concrete block.
6	1	Mary Frances White, 1900-1969	Marker and Depression	Granite	26 cm	54 cm	Mostly pressed into the ground	East	AZ	3/24/20	A medium depression oriented to the east of the headstone is likely associated with the burial. Approx 25 ft SW of Allen white, and 30 ft west of Rodney white. Same type of headstone.
7	4	In loving Rembevy, of the Burley Family, Lewis B Burley, Father, Jennie Burley, Mother	Marker	Concrete	49 cm (without base)	44 cm (without base)	27 cm at the bottom, 6cm at the top	East	AZ	3/24/20	The Headstone itself is in reasonable condition, difficult to tell if it is in situ, but seems to roughly fall in line with the A4 and B1 headstones. Entirely made out of concrete, inscription etched into the front.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
8	1	Allen White 1925-1973	Marker and Depression	Granite	9 cm	26 cm	57 cm	Southeast	JF	3/23/20	Legible and fairly well kept. Slight depression to the SE of the marker.
9	1	Wallace Mason, Born May 1892, Died Sept 1931	Marker and Depression	Concrete	80 cm from ground	33 cm	8 cm	East	AZ	3/24/20	Falls roughly in line with the other headstones. Lies adjacent to a depression. Single concrete headstone, triangulate at the top.
10	4	FATHER Chas Jones Died Nov. 13, 1921 Age 51 years	Marker	Marble	31 cm	20 cm	6 cm	North	JF	3/23/20	Stone is intact, but placement of stone is not definite. May have been moved or shifted over time. Laying with inscription facing up, no indication in ground of original placement.
11	1	N/A	Marker and Depression	Zinc	N/A	N/A	N/A	Southeast	JF	3/24/20	May have been moved as it sits to the side of a depression. Stake is embedded in ground, frame has fallen off. Depression is approximate 6 ft by 2 ft.
12	1	N/A	Marker and Depression	Zinc	32 cm	20 cm	N/A	East	JF	3/24/20	Sheet metal stake with frame attached frame is 13 cm by 19 cm. With glass, no paper within has survived. Deep grave depression associated, approximately 6 ft by 2.5 ft.
13	4	N/A	Possible Marker	Granite	15 cm	12 cm	2 cm	N/A	AZ	3/23/20	Possibly not in situ. Two tabular black granite fragments with no visible lettering. Possibly not in situ, located next to a large pushpile.
14	1	N/A	Marker	Sandstone	40 cm	20 cm	10 cm	N/A	JF	3/24/20	Large sandstone block, sunken into ground, possibly toppled. Measurements taken from visible portion of stone.
15	2	N/A	Probable marker	Sandstone	10 cm	58 cm	20 cm	N/A	JF	3/24/20	Slope is south west ward towards house. May be broken headstone fragment lying face down. Side fading north is more straight. Possibly related to a slight depression to the east. There is a small embedded sandstone fragment at the north east corner of the grave depression.
16	1	N/A	Marker	Granite	14 cm	20 cm	8 cm	North,South	JF	3/23/20	Despite not knowing which direction the stone faces and therefore where the burial is the stone appears to be in situ. Single stone, no inscription, slight depression north of stone, jagged break at top, sides smoothly cut, placed in ground.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
17	1	Milton ____ (illegible), April 20 1925	Marker	Sandstone	18 cm	30 cm	Completely sunken. Only about one centimeter sticking out of the ground	East	AZ	3/24/20	Located approximately 1.5 m east of a large tree stump. There is a depression located approximately 50 cm to the east that is possibly associated with the grave. Appears to be quartzite. Rough external, and coarse grain. Pinkish, brownish, gray in color. The marker front faces East, but the marker seems to have sunk more on the west side.
18	1	HARRIE	Marker and Depression	Slate	54 cm	30 cm	3 cm	East	JF	3/25/20	Slate marker with teal paint.
19	1	N/A	Depression	N/A	N/A	N/A	N/A	East/W	JF	3/23/21	Obvious rectangular depression next to Feature 8.
20	4	N/A	Undetermined	Fieldstone	15 cm	12 cm	N/A	East, West	AZ	3/24/20	Falls roughly in line with other headstones. Grey in color, and fine grained. This is a possible headstone grave marker. A small quartzite Stone pounded in the ground.
21	1	N/A	Marker and Other	Fieldstone, Quartz	N/A	N/A	N/A	East/W	AZ	3/24/20	Two quartzite and 3 quartz markers present in a cluster. A glass bottle in buried with the neck sticking up among them.
22	1	N/A	Marker	Sandstone	8 cm	23 cm	1 cm at the top, 5 cm at the base	East, West	AZ	3/24/20	Assuming it is a foot stone.
23	1	N/A	Marker	Sandstone	6 cm	10 cm	4 cm from ground	East, West	AZ	3/24/20	It seems to be a footstone. Small sandstone block a rectangular shape.
24	1	N/A	Marker	Sandstone	9 cm	25 cm	6 cm	East, West	AZ	3/24/20	A sandstone head stone, buried side- up with the flat portions facing west-east.
25	1	N/A	Marker	Sandstone	8 cm	13 cm	6 cm	N/A	AZ	3/24/20	Likely headstone.
26	1	N/A	Marker	Sandstone	6 cm	8 cm	7 cm from ground	N/A	AZ	3/24/20	Broken in half.
27	1	N/A	Marker	Sandstone	5 cm	10 cm	5 cm from ground	East, West	AZ	3/24/20	Likely in situ foot stone.
28	2	N/A	Probable marker	Sandstone	6 cm	13 cm	22 cm	East, West	AZ	3/24/20	Possible footstone, though it is unclear what headstone it may be associated with.
29	2	N/A	Probable marker	Fieldstone	15 cm	11 cm	15 cm	N/A	JF	3/24/20	Upright triangular fieldstone, cracked horizontally, embedded in ground. Smoothed surface faces south, no associated depression.
30	1	N/A	Marker	Fieldstone	20 cm	20 cm	10 cm	East, West	AZ	3/24/20	Appears to be chiseled flat on the West and East Side, slightly tilted towards the east. Rectangular sandstone slab.
31	1	N/A	Marker	Sandstone	15 cm	16 cm	7 cm from ground	N/A	JF	3/24/20	Three fragments of triangular, chisel shaped stone, broken. One fragment embedded in ground and upright though leaning. Other two fragments laying on surface.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
32	3	N/A	Possible Marker	Sandstone	10 cm	27 cm	17 cm	East,West	AZ	3/24/20	The foot stone is possibly missing. Located approximately 30 centimeters west of another flat stone, wood does not seem to be a grave marker.
33	1	N/A	Marker	Fieldstone	7 cm	17 cm	8 cm	East,West	JF	3/24/20	Small fieldstone slab shaped fragment. Embedded in ground, no associated depression.
34	2	N/A	Probable marker	Fieldstone	6 cm	14 cm	14 cm	East,West	JF	3/24/20	Square shaped fieldstone embedded in ground. Flat smooth side facing west. No associated depression.
35	1	N/A	Marker	Fieldstone	4 cm	20 cm	17 cm	N/A	JF	3/24/20	Located in south west corner of property. Slab shaped fieldstone laying down, embedded in ground. No associated depression.
36	2	N/A	Probable marker	Fieldstone	4 cm	18 cm	10 cm	East,West	JF	3/24/20	Small fieldstone fragment embedded in ground. No associated depression.
37	2	N/A	Probable marker	Fieldstone	8 cm	20 cm	14 cm	N/A	JF	3/24/20	Quartz and fieldstone. In entrance path to cemetery. Contains two stones, a fieldstone fragment and a very large white quartz cobble. Both embedded in ground. Primary is quartz, secondary is fieldstone.
38	2	N/A	Probable marker	Fieldstone	7 cm	18 cm	11 cm	East,West	JF	3/24/20	Next to entrance path. Small fieldstone fragment cut and smooth on side facing up.
39	1	N/A	Marker	Fieldstone	23 cm	28 cm	8 cm	N/A	JF	3/24/20	Adjacent to entrance path, ground slopes towards south west. Irregular shaped Fieldstone slab embedded in ground. No visible depression.
40	1	N/A	Marker and Depression	Fieldstone	17 cm	19 cm	5 cm	East,West	JF	3/24/20	Located near entrance to cemetery, ground slopes towards street. Small broken fieldstone slab with associated depression to the east. Depression approximately 5ft by 2 ft
41	1	N/A	Marker	Fieldstone	13 cm	25 cm	10 cm	East,West	JF	3/24/20	Fieldstone fragment, embedded in ground.
42	1	N/A	Marker and Depression	Sandstone	10 cm	13 cm	5 cm	N/A	JF	3/24/20	Small sandstone fragment, embedded in ground, appears to be at north east corner (foot) of depression.
43	2	N/A	Probable marker	Sandstone	9 cm	25 cm	16 cm	East,West	JF	3/24/20	Close to top of slope. Sandstone block fragment, south facing side is cut and smooth, remaining visible surfaces are jagged. Rock broken into to fragments, probably though vegetation or freeze thaw. Both pieces embedded in ground associated with depression to the east of stone.
44	3	N/A	Possible Marker	Fieldstone	11 cm	15 cm	11 cm	N/A	JF	3/24/20	Square shaped fieldstone embedded in ground, falls in location of foot stone, slight possible depression west of stone.
45	1	N/A	Marker and Depression	Quartz	15 cm	22 cm	15 cm	East,West	JF	3/24/20	Mottled white and pinkish quartz cobble. Embedded in ground. At edge of slope leading towards house. There is a slight grave depression to the East of the stone, approximately 6 ft by 2 ft.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
46	1	N/A	Marker	Fieldstone	11 cm	19 cm	8 cm	East,West	JF	3/24/20	Thick triangular fragment of field stone embedded in ground. Although exact location falls in the middle of the row of grave depressions. Maybe represent boundary, smaller internment or stone was moved.
47	4	N/A	Undetermined	Fieldstone	N/A	N/A	N/A	N/A	JF	3/24/20	Large fieldstone cobble, recently moved, there is green grass below it. It is close to the foot of a line of graves.
48	4	N/A	Undetermined	Various	N/A	N/A	N/A	N/A	JF	3/24/20	Small concrete chunk (possible cinder block type fragment) with ferrous metal item adjacent. Ferrous item may be gate lock mechanism or other similar hardware. May not represent gravesite.
49	4	N/A	Undetermined	Fieldstone	7 cm	19 cm	12 cm	N/A	JF	3/24/20	Does not fall in line with other visible grave stones or depressions, may have been moved. Smaller fieldstone embedded in soil.
50	4	N/A	Undetermined	Fieldstone	25 cm	17 cm	8 cm	N/A	JF	3/23/20	Stone is not upright as many are that are of similar shape and size, original position is lost. Fieldstone, larger piece, two faces may be cut, others are broken.
51	4	N/A	Undetermined	Fieldstone	14 cm	12 cm	3 cm	N/A	JF	3/23/20	Integrity diminished by not being sure stone is in situ. Small, fieldstone, potential marker.
52	1	N/A	Marker	Fieldstone	13 cm	22 cm	10 cm	East,West	JF	3/24/20	Fieldstone fragment embedded in ground. Smooth side faces north west.
53	4	N/A	Undetermined	Fieldstone	5 cm	13 cm	13 cm	N/A	JF	3/24/20	Small fieldstone fragment laying in top of ground, no associated depression.
54	3	N/A	Possible Marker	Fieldstone	10 cm	27 cm	24 cm	N/A	JF	3/24/20	Large fieldstone cobble fragment. No visible depression associated.
55	3	N/A	Possible Marker	Fieldstone	N/A	23 cm	19 cm	N/A	JF	3/24/20	Fieldstone slab shaped fragment, exposed surface is smooth, edges are jagged, embedded in ground.
56	1	N/A	Marker	Fieldstone	12 cm	24 cm	11 cm	East,West	JF	3/24/20	Fieldstone fragment embedded in ground. Long flat smooth side faces east. No associated depression.
57	3	N/A	Possible Marker	Glass	5 cm	5 cm	Completely buried	N/A	AZ	3/24/20	Any sort of headstone is missing, except for a glass bottle, or jar buried upside down. 6748z eched on the bottom of the bottle.
58	1	N/A	Marker	Sandstone	2 cm	24 cm	5 cm	East,West	AZ	3/24/20	The stone seems to be broken at the top.
59	1	N/A	Marker	Fieldstone	Headstone: 1 cm	15 cm	18 cm	East,West	AZ	3/24/20	A headstone and footstone are both present. Headstone laying flat, while foot stone standing on its side, East to west orientation, approximately 1.6 meters apart.
60	2	N/A	Probable marker	Fieldstone	N/A	N/A	N/A	N/A	AZ	3/24/20	Lies flat in the ground. Possibly toppled over.
61	1	N/A	Marker	Sandstone	19 cm	26 cm	4 cm	East,West	AZ	3/24/20	Possible headstone. Looks to be placed deliberately on its side. No footstone or depression associated is visible
62	3	N/A	Possible Marker	Fieldstone	6 cm	20 cm	9 cm	N/A	JF	3/25/20	Fieldstone tablet shaped marker embedded in ground.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
63	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/25/20	Depression with no marker, daffodils planted at west end of depression.
64	1	N/A	Depression	None	N/A	N/A	N/A	N/A	AZ	3/23/20	No headstone present, depression close to the foot of the hill. A slab of quartz to the northwest is possibly associated, but does not appear to be in situ (sits loosely on the ground).
65	1	N/A	Depression	None	2 m	1 m	15 cm deep	N/A	AZ	3/24/20	Located at the foot of the Hill, near the Eastern edge of the property. The easternmost recorded depression on location. No headstone, foot stone, or other physical material associated with the burial present. This feature is marked by a depression in the ground, of east-west orientation.
66	1	N/A	Depression	None	About 2 m	1 m	20 cm	Southeast	AZ	3/23/20	Located directly adjacent to another sunken depression on the north side. No headstone or decorations associated with this burial are immediately visible. A southeast-northwest facing depression in the soil.
67	1	N/A	Depression	None	2 m	1 m	Approx 20 cm	N/A	AZ	3/24/20	No headstone, or foot Stone visible, an east-west oriented depression in the ground.
68	1	N/A	Depression	None	1-2 m	1 m	10-20 cm	N/A	AZ	3/23/20	Very ill defined dimensions, but a seemingly obvious anthropogenic depression facing SE.
69	1	N/A	Depression	None	About 2 m nw to se	About 1 m	About 20 - 25 cm deep	N/A	AZ	3/23/20	No headstone associated with the depression.
70	1	N/A	Depression	Fieldstone	1.8 m	1 m	N/A	N/A	AZ	3/24/20	The feature is a shallow east-west pit.
71	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/24/20	Depression with no marker.
72	1	N/A	Depression	None	1.5 m	80 cm	Approx 10 cm	N/A	AZ	3/24/20	The pit is located close to the southern end of the property. The feature is a shallow sunken pit, no headstone or any other material culture associated with the burial found in the immediate area.
73	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/24/20	No marker, large depression approximately 6 ft by 3.5 ft on east west axis.
74	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/24/20	No marker. Slight depression. Approximately 6 ft by 2 ft.
75	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/24/20	Obvious rectangular grave depression, about 6ft by 2 ft, on the east west axis. No marker present
76	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/20	Elongated depression in line with other nearby burials.About 5 ft long.
77	1	N/A	Depression	None	2 m	1.2 m	About 20 cm deep at deepest part	N/A	JF	3/24/20	No marker, very clear grave sized depression.

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
78	1	N/A	Depression	Quartz	1.2 m	1.2 m	About 10 cm deep	N/A	AZ	3/24/20	Located far to the north from all others. There is a slab of quartz, located slightly West of a depression in the ground.
79	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
80	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/25/20	No marker. Approximately 5 ft by 2 ft depression.
81	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
82	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
83	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
84	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
85	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Deep depression, in line with others.
86	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglassNo discernable related depression or other marker. Located west of large concentration of stones. next to some daffodils.
87	1	N/A	Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic / fiberglass marker. No discernable depression. Long thin fieldstone located 3 ft SE. Fieldstone is 1.1 ft long and 0.1 thick, embedded in ground.
88	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic fiber glass marker. Play in mound around large tree, no other markers nearby.
89	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass. Possible depression to the east of marker, piece of wood, and fieldstone next to marker.
90	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass marker. No depression or other possible markers.
91	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass. No depression or other possible markers.
92	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass. Possible depression to the west of marker. Wooden stake is possible marker.
93	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass. No depression. One fieldstone 2 ft north.Plastic/ fiberglass.
94	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic/ fiberglass. No depression no other marker.
95	3	N/A	Possible Marker	Plastic / fiberglass	N/A	N/A	N/A	N/A	JF	3/25/20	Plastic / fiberglass. No depression. No other markers.
96	1	N/A	Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Depression next to fence in line with slate marker depressions.
97	4	N/A	Undetermined	Quartz, brick, glass	N/A	N/A	N/A	N/A	JF	3/23/21	Small collection of broken granite fragments, was once tabular, no depression, not in line with other markers or depressions
98	3	N/A	Possible Depression	None	N/A	N/A	N/A	N/A	JF	3/23/21	Possible depression in ROW, not clear
99	4	N/A	Undetermined	Quartz, Brick, Glass	N/A	N/A	N/A	N/A		3/23/21	quartz fragments with brick and glass

Feature #	Tier	Inscription	Type of Feature	Marker Material	Height	Width	Depth (or Length)	Orientation	Recorded by	Date	Notes
100	4	N/A	Undetermined	Quartz	N/A	N/A	N/A	N/A	JF	3/23/21	quartz fragments with brick and bottle glass
101	4	N/A	Undetermined	Stone	N/A	N/A	N/A	N/A	JF	3/23/21	Scatter of granite? Fragments
102	4	N/A	Undetermined	Sandstone	N/A	N/A	N/A	N/A	JF	3/23/21	Large cobble laying on surface
103	1	N/A	Marker	Fieldstone	N/A	N/A	N/A	N/A	JF	3/23/21	Fieldstone markers
104	1	N/A	Marker	Fieldstone	N/A	N/A	N/A	N/A	JF	3/23/21	Fieldstone markers
105	1	N/A	Marker	Fieldstone	N/A	N/A	N/A	N/A	JF	3/23/21	embedded marker
106	4	N/A	Undetermined	Quartz	N/A	N/A	N/A	N/A	JF	3/23/21	Large quartz, close to road and lodge
107	4	N/A	Undetermined	Quartz	N/A	N/A	N/A	N/A	JF	3/23/21	Boulder in ground, near road and lodge. Probably not burial related
108	3	N/A	Possible Marker	Fieldstone	N/A	N/A	N/A	N/A	JF	3/23/21	Possible marker, embedded in ground, not oriented like other markers
109	4	N/A	Undetermined	Cement and stone	N/A	N/A	N/A	N/A	JF	3/23/21	Cement with broken tablet possible granite. Near lodge

Appendix E

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	1
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	The two slabs of red Sandstone, seem to represent a headstone and a footstone of the same burial.
---------------------------------------	---

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone/Footstone	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	(Headstone) 35cm [out of the ground]	(Footstone) 15cm [out of the ground]
Width	(Headstone) 25cm wide x 14cm thick	(Headstone) 26cm wide x 12cm thick
Depth (or Length)	(Distance from head to foot) 196cm between the two stones. Hard to see, as there is no depression assumed 1m wide	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	The material is made out of what seems to be a reddish sandstone. Finely grained, no inscriptions.

Overall Conditions	
Status: Abandoned	State of Internment: Tilted
Comments/Observations on Overall Conditions	Both, The Headstone in the foot Stone are tilted towards the east, down the slope.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	2
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	James F Cooper
First burial date: March 20, 1943	Last Burial Date: N/A
Inscription	James F Cooper
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	The Headstone seems to be facing west, and has fallen over towards the east, down slope.
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	West	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Negative			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	47cm	Inscription- 11cm
Width	34cm	Inscription- 23cm
Depth (or Length)	3cm thick	N/A

Materials	
Primary Material: Concrete	
Additional Materials	Bronze
Comments on Materials	Concrete headstone, with inscription carved on the bronze or copper plate.

Overall Conditions	
Status: Abandoned	State of Internment: Tilted, Sunken
Comments/Observations on Overall Conditions	Has fallen over. Possibly not an original location.
Additional Comments/Observations	The feature Falls approximately 1.5 m to the south of C3.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	3
Date	23-03-2020
Weather	Cold Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	9cm	N/A
Width	20cm	N/A
Depth (or Length)	25ch	N/A

Materials	
Primary Material: Granite	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	Difficult to tell whether it is in situ, but sits sunken in the ground.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	4
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	Leroy Dove
First burial date: October 20 1910	Last Burial Date: March 4 1940
Inscription	Line 1 - Leroy Dove, Line 2 - Oct 20 1910, Line 3 - Mar 4 1940
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Located approximately 2 meters from the southern edge of the property.
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	42cm	N/A
Width	20cm	N/A
Depth (or Length)	4cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	Chiseled flat on all sides. Fine-grained

Overall Conditions	
Status: Abandoned	State of Internment: Fragment, Tilted, Sunken
Comments/Observations on Overall Conditions	Difficult to tell where the exact placement would have been, but assumed to be very close to current location, due to the presence of both headstones
Additional Comments/Observations	Located about one meter south from B1. Smaller portion of the headstone is the top, while the larger is the bottom.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	5
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	Rodney T White
First burial date: 1966	Last Burial Date: N/A
Inscription	1924-1966
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Same headstone appearance as Allen and Mary White. Located to the east of what looks to be an old concrete fence line block.
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	Southeast	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	27 cm	N/A
Width	57 cm	N/A
Depth (or Length)	Sunken	N/A

Materials	
Primary Material: Granite	
Additional Materials	N/A
Comments on Materials	Center of headstone is also great granite, but unpolished

Overall Conditions	
Status: Inactive	State of Internment: Sunken
Comments/Observations on Overall Conditions	About 40 ft se from Allen White, and 45 ft west from Mary White
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	6
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	Mary Frances White
First burial date: 1900	Last Burial Date: 1969
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Approx 25 ft SW of Allen white, and 30 ft west of Rodney white. Same type of headstone
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	26cm	17cm (inscription)
Width	54cm	50cm (inscription)
Depth (or Length)	Mostly pressed into the ground.	N/A

Materials	
Primary Material: Granite	
Additional Materials	N/A
Comments on Materials	Blavvk/grey. Polished around the outer portion. The inside is also of black/grey granite, but rtougher

Overall Conditions	
Status: Unknown	State of Internment: Tilted, Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Additional photos face: west, NE, and se redpectivrlly

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	7
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	Lewis B Burley and Jennie Burley
First burial date: N/A	Last Burial Date: N/A
Inscription	Line 1- In loving Rembev (illegible), line 2 - of the Burley Family, line 3 - Lewis B Burley, line 4 - Father, line 5 - Jennie Burley, line 6 - mother
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: Headstone/Footstone	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	49cm (without base)	12cm (base)
Width	44cm (without base)	54cm (base)
Depth (or Length)	27cm at the bottom, 6cm at the top	32cm (base)

Materials	
Primary Material: Concrete	
Additional Materials	N/A
Comments on Materials	Entirely made out of concrete, inscription etched into the front.

Overall Conditions	
Status: Abandoned	State of Internment: Tilted
Comments/Observations on Overall Conditions	The Headstone itself is in reasonable condition, difficult to tell if it is in situ, but seems to roughly fall in line with the A4 and B1 headstones.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	8
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	Allen White
First burial date: 1973	Last Burial Date: N/A
Inscription	Allen White 1925-1973
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	Southeast	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	9cm	N/A
Width	26cm	N/A
Depth (or Length)	57cm	N/A

Materials	
Primary Material: Granite	
Additional Materials	Bronze
Comments on Materials	Military insignia. Corroded and illegible.

Overall Conditions	
Status: Inactive	State of Internment: Standing, Sunken
Comments/Observations on Overall Conditions	Legible and fairly well kept
Additional Comments/Observations	The depression is about 6-7ft to the south east of the headstone. A pink vase near the foot is possibly associated with the burial (ad photo 2)

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	9
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	Wallace Mason
First burial date: May 1892	Last Burial Date: September 1931
Inscription	Line 1 - Wallace, line 2 - born may 1892, line 3 - died Sept 1931
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	80cm from ground	N/A
Width	33cm	N/A
Depth (or Length)	8cm	N/A

Materials	
Primary Material: Concrete	
Additional Materials	N/A
Comments on Materials	Single concrete headstone, triangulate at the top

Overall Conditions	
Status: Abandoned	State of Internment: Tilted
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Additional photos orientations west, north and south reddpectively

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	10
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	Chas Jones
First burial date: Nov. 13 1921	Last Burial Date: N/A
Inscription	FATHER Chas Jones Nov. 13, 1921 Age 51 years
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Laying with inscription facing up, no indication in ground of original placement
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	North	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	31	N/A
Width	20	N/A
Depth (or Length)	6	N/A

Materials	
Primary Material: Marble	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	Stone is intact, but placement of stone is not definite. Messy have been moved or shifted over time
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	11
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	Southeast	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Zinc	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	12
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	32	N/A
Width	20	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Zinc	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	13
Date	23-03-2020
Weather	Cold Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Two black granite headstone fragments with no visible lettering. Possibly not in situ, located next to a large pushpike
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	15 cm	20 cm (triangular shape)
Width	12 cm	12cm at base
Depth (or Length)	2 cm	2cm

Materials	
Primary Material: Granite	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Fragment
Comments/Observations on Overall Conditions	Possibly not in situ
Additional Comments/Observations	Large pushpile adjacent along the north side

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	14
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Large sandstone block, sunken into ground, possibly toppled. Measurements taken from visible portion of stone.
---------------------------------------	---

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	40	N/A
Width	20	N/A
Depth (or Length)	10	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	15
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone/Footstone	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A		Grade slope: Cross-Slope		

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	10	N/A
Width	58	N/A
Depth (or Length)	20	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	16
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	North	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	14	N/A
Width	20	N/A
Depth (or Length)	8	N/A

Materials	
Primary Material: Granite	
Additional Materials	N/A
Comments on Materials	Coarse, almost quartzite

Overall Conditions	
Status: Abandoned	State of Internment: Standing
Comments/Observations on Overall Conditions	Despite not knowing which direction the stone faces and therefore where the burial is the stone appears to be in situ
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	17
Date	24-03-2020
Weather	Not Recorded
Name(s) of Interred	Milton ____ (illegible)
First burial date: April 20 1925	Last Burial Date: N/A
Inscription	Line 1 - Milton ____ (illegible), line 2 - April 20 1925
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	18cm	(Depression to the east of the stone, oriented w-e) 1.5m
Width	30cm	.7m
Depth (or Length)	Completely sunken. Only about one centimeter sticking out of the ground.	About 10 cm sunken

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	Appears to be quartzite. Rough external, and coarse grain. Pinkish, brownish, gray in color.

Overall Conditions	
Status: Abandoned	State of Internment: Tilted, Sunken
Comments/Observations on Overall Conditions	There is a depression located approximately 50 cm to the east that is possibly associated with the grave.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	18
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	Harrie
First burial date: N/A	Last Burial Date: N/A
Inscription	Illegible HARRIE
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: None			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	54	N/A
Width	30	N/A
Depth (or Length)	3	N/A

Materials	
Primary Material: Slate	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Tilted, Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	In photo 3 there is an unmarked depression in the background. It appears that this row continues south to connect with other graves recorded outside of the bamboo.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	19
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Depression next to Feature 8
---------------------------------------	------------------------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name:	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Negative			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	N/A	N/A
Width	N/A	N/A
Depth (or Length)	N/A	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	20
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	15cm	N/A
Width	12cm	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	Likely a local quartzite. Grey in color, and fine grained

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	Falls roughly in line with the headstones of a4 and A7
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	21
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	A small cluster of stones, possibly marking a headstone location. A glass bottle is buried with the neck sticking up among them
---------------------------------------	---

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone, Quartz	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Two quartzite and 3 quartz markers present in a cluster. Seem to fall in line with b38
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	22
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	A sandstone, buried with the side sticking up from the ground. Likely foot stone related to b5
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Footstone	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	8cm	N/A
Width	23cm	N/A
Depth (or Length)	1cm at the top, 5cm at the base	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	23
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Footstone	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A		Grade slope: Positive		

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	6cm	N/A
Width	10xm	N/A
Depth (or Length)	4cm from ground	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	A small Sandstone block a rectangular shape

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	It seems to be a impact foot Stone to B6
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	24
Date	24-03-2020
Weather	Warm Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	A sandstone head stone, buried side- up with the flat portions facing west-east. Possibly associated with be which likes about 7ft to the easr.
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: Footstone	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	9cm	N/A
Width	25cm	N/A
Depth (or Length)	6cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	25
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Likely the headstone for b4. Lies yo the north of b5
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Positive			

Measurements	Primary Dimensions (cm if not specified)	Secondary Dimensions (cm if not specified)
Height	8cm	N/A
Width	13cm	N/A
Depth (or Length)	6cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Additional Photos facing north and east redpectively

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	26
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Footstone	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	6cm	N/A
Width	8cm	N/A
Depth (or Length)	7cm from ground	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Standing, Fragment, Tilted
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	27
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	A Sandstone foot Stone, most likely associated with b 11
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Footstone	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A		Grade slope: Positive		

	fi	fi
Height	5cm	N/A
Width	10cm	N/A
Depth (or Length)	5cm from ground	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Standing, Tilted, Sunken
Comments/Observations on Overall Conditions	Likely in situ footstone for b-11
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	28
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: Footstone	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	6cm	N/A
Width	13cm	N/A
Depth (or Length)	22cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	29
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	15	N/A
Width	11	N/A
Depth (or Length)	15	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	30
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	20	N/A
Width	20	N/A
Depth (or Length)	10	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Appears to be chiseled flat on the West and East Side, slightly tilted towards the east
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	31
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	15	N/A
Width	16	N/A
Depth (or Length)	7	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	32
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	A likely headstone, with a missing foot Stone.
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	10cm	N/A
Width	27cm	N/A
Depth (or Length)	17cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Located approximately 30 centimeters west of another flat stone, wood does not seem to be a grave marker.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	33
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	7	N/A
Width	17	N/A
Depth (or Length)	8	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	34
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	6	N/A
Width	14	N/A
Depth (or Length)	14	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	35
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	4	N/A
Width	20	N/A
Depth (or Length)	17	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	36
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	4	N/A
Width	18	N/A
Depth (or Length)	10	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	37
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	8	2
Width	20	18
Depth (or Length)	14	10

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	Quartz and fieldstone

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	38
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	7	N/A
Width	18	N/A
Depth (or Length)	11	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	39
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	23	N/A
Width	28	N/A
Depth (or Length)	8	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	40
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	17	N/A
Width	19	N/A
Depth (or Length)	5	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	41
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	13	N/A
Width	25	N/A
Depth (or Length)	10	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	42
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Small sandstone fragment, embedded in ground, appears to be at north east corner (foot) of depression. Possibly associated with stone A-15
---------------------------------------	--

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	10	N/A
Width	13	N/A
Depth (or Length)	5	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	43
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	9	N/A
Width	25	N/A
Depth (or Length)	16	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	44
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	11	N/A
Width	15	N/A
Depth (or Length)	11	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	45
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	15	N/A
Width	22	N/A
Depth (or Length)	15	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	Mottled white and pinkish quartz cobble. Embedded in ground.

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	46
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	11	N/A
Width	19	N/A
Depth (or Length)	8	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	47
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Large fieldstone cobble, recently moved, there is green grass below it. It is close to the foot of a line of graves.
---------------------------------------	--

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Relocated
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	48
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	49
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	7	N/A
Width	19	N/A
Depth (or Length)	12	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Does not fall in line with other visible grave stones or depressions, may have been moved.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	50
Date	23-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	25	N/A
Width	17	N/A
Depth (or Length)	8	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	Stone is not upright as many are that are of similar shape and size, original position is lost.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	51
Date	23-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	14	N/A
Width	12	N/A
Depth (or Length)	3	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Integrity diminished by not being sure stone is in situ
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	52
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	13	N/A
Width	22	N/A
Depth (or Length)	10	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	53
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	5	N/A
Width	13	N/A
Depth (or Length)	13	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	54
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	10	N/A
Width	27	N/A
Depth (or Length)	24	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	55
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	fi	fi
Height	Not recorded	N/A
Width	23	N/A
Depth (or Length)	19	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	56
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	12	N/A
Width	24	N/A
Depth (or Length)	11	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	57
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	The possible marker is a bottom of a glass bottle sticking up from the ground. It is unclear what it may be marking, but it seems to have been deliberately buried
---------------------------------------	--

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	5cm	N/A
Width	5cm	N/A
Depth (or Length)	Completely buried	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	58
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	The Headstone seems to be broken at the top. No puts down visible, but Falls in line with B15 to the South, And b35 approximately 20 feet North
---------------------------------------	---

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	2cm	N/A
Width	24cm	N/A
Depth (or Length)	5cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Fragment, Sunken
Comments/Observations on Overall Conditions	Missing foot Stone, headstone possible broken at the top
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	59
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	A headstone and puts down are both present. Headstone laying flat, while foot Stone standing on its side
---------------------------------------	--

Description					
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A	
Marker Type: Headstone/Footstone	Marker Orientation	East	Landscape	Forest	
Secondary marker/furniture: N/A	Grade slope: Negative				

	fi	fi
Height	Headstone: 1cm	Footstone: 6cm
Width	15cm	12cm
Depth (or Length)	18cm	3cm

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Standing, Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	60
Date	24-03-2020
Weather	Warm Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Slate	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Falls between c10 and b42, seemingly in ljne. No depression or footstone visible

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	61
Date	24-03-2020
Weather	Sunny Windy
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Possible headstone. Looks to be placed deliberately on its side. No footstone or depression associated is visible
---------------------------------------	---

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	East	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	19cm	N/A
Width	26cm	N/A
Depth (or Length)	4cm	N/A

Materials	
Primary Material: Sandstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	62
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	6	N/A
Width	20	N/A
Depth (or Length)	9	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	63
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	64
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	An unmarked depression close to the foot of the hill
---------------------------------------	--

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	About .8 m
Depth (or Length)	Not Recorded	About 2m from nw to se

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No marker

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	65
Date	24-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	The easternmost recorded depression on location. False approximately 15 it's 20 feet East from C3, and C4.
---------------------------------------	--

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	2m	N/A
Width	1m	N/A
Depth (or Length)	15cm deep	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No materials left standing

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Located at the foot of the Hill, near the Eastern edge of the property. Approximately 15th Street North from C1, add 20 feet East from C3 and C4.
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	66
Date	23-03-2020
Weather	Cold Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	Southeast	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	About 2m	N/A
Width	1m	N/A
Depth (or Length)	20cm	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No remaining materials

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	No headstone or decorations associated with this burial are immediately bisible
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	67
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	2m	N/A
Width	1m	N/A
Depth (or Length)	Approx 20cm	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	No headstone, or foot Stone visible. C4 is representative only by a east west oriented depression in the ground.
Additional Comments/Observations	30 cm north of c-3, and running parallel

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	68
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	An unmarked depression at the foot of the slope
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	1-2m	N/A
Width	1m	N/A
Depth (or Length)	10-20cm	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No materials remaining

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	Very ill defined dimensions, but a seemingly obvious anthropogenic depression facing se
Additional Comments/Observations	At the bottom of the slope

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	69
Date	23-03-2020
Weather	Cold Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	About 2m nw to se	N/A
Width	About 1m	N/A
Depth (or Length)	About 20 - 25 cm deep	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No headstone associated with the depression

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	70
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	1.8m	N/A
Width	1m	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	No headstone or any other marker located. The feature is a shallow east-west pit that lies adjacent to a9.
Additional Comments/Observations	Photo firections: west, south respectively

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	71
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	72
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Positive			

	fi	fi
Height	1.5m	N/A
Width	.8m	N/A
Depth (or Length)	Approx 10cm	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	The pit is located close to the southern end of the property. In roughly lines up with the pit of the A6 feature
Additional Comments/Observations	Additional photographs are taken from the following Direction respectively. Facing west, facing north, Facing East.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	73
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	74
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	75
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	76
Date	23-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Depression, possible burial. Elongated depression roughly on north south axis with other nearby burials.
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Abandoned	State of Internment: Ruin
Comments/Observations on Overall Conditions	Depression, no stone
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	77
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	No marker, very clear grave sized depression.
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	200	N/A
Width	120	N/A
Depth (or Length)	About 20 cm deep at deepest part	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	No marker

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	78
Date	24-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	There is a slab of quartz, located slightly West of a depression in the ground.
---------------------------------------	---

Description					
Enclosure: N/A		Family Marker ? N/A		Family Name: N/A	
Marker Type: Headstone (no/missing footstone)	Marker Orientation	N/A	Landscape	Forest	
Secondary marker/furniture: N/A	Grade slope: Positive				

	fi	fi
Height	1.2m	25cm headstone
Width	1.2m	20cm headstone
Depth (or Length)	About 10cm deep	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	Quartz, possibly not associated with the drpressikn

Overall Conditions	
Status: Abandoned	State of Internment: Sunken
Comments/Observations on Overall Conditions	Located far to the north from all others
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	79
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known):	Location of carver mark:

Additional Comments on Identification	Deep depression, in line with others.
---------------------------------------	---------------------------------------

Description				
Enclosure:	Family Marker ? N/A		Family Name:	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Forest
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	Fieldstone N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	80
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	81
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	82
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not Recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	83
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: None			

	fi	fi
Height	Not Recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	84
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not Recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	85
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? No		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not Recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Sunken
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	86
Date	25-03-2020
Weather	Cool Overcast
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Plastic/ fiberglass
---------------------------------------	---------------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope:			
	Cross-Slope			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	87
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Soil
Secondary marker/furniture: N/A	Grade slope: Cross-Slope			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	88
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	89
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	90
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	91
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	92
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	93
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Plastic/ fiberglass. No depression. One fieldstone 2 ft north.
---------------------------------------	---

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	94
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	95
Date	25-03-2020
Weather	Cool Rain/Snow/Fog
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	ft	ft
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	N/A

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	96
Date	23-03-2021
Weather	Sunny Warm
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): No	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Negative			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Partial depression 3 feet by 2 feet

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	97
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Collection of several broken flat rocks

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	98
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Possible depression, not clear at all, but lines up with other depressions

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	99
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Quartz	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Several fragments of quartz with brick and sandstone, brick and bottle glass about 3 feet wide

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	100
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Two large quartz frames embedded in ground worth a small brick embedded and bottle glass

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	101
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Many fragments of broken flat stone, sandstone. Not embedded.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	102
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Sandstone cobble sitting on surface. Possible marker

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	103
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	2 markers oriented north south definite markers, possible head stone and foot stone of different graves. Western most is 7 feet east of another stone. Both embedded into ground.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	104
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Triangular shape stone embedded in ground.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	105
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: Fieldstone	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Trapezoidal stone embedded in ground

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	106
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	large quartz fragment, in ground

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	107
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Sandstone boulder in ground

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	108
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Fieldstone possible marker, maybe moved, maybe foundation related. Embedded in ground.

Grave Conditions Survey Form

Area	N/A
Transect	N/A
Feature Number	109
Date	23-03-2021
Weather	Not Recorded
Name(s) of Interred	N/A
First burial date: N/A	Last Burial Date: N/A
Inscription	N/A
Stone carver (if known): N/A	Location of carver mark: N/A

Additional Comments on Identification	Not Recorded
---------------------------------------	--------------

Description				
Enclosure: N/A	Family Marker ? N/A		Family Name: N/A	
Marker Type: N/A	Marker Orientation	N/A	Landscape	Not Recorded
Secondary marker/furniture: N/A	Grade slope: Not Recorded			

	fi	fi
Height	Not recorded	N/A
Width	Not Recorded	N/A
Depth (or Length)	Not Recorded	N/A

Materials	
Primary Material: N/A	
Additional Materials	N/A
Comments on Materials	N/A

Overall Conditions	
Status: Not Recorded	State of Internment: Not Recorded
Comments/Observations on Overall Conditions	N/A
Additional Comments/Observations	Eroding Concrete chunk with some tabular rock fragments scattered around



Photo 4: Feature 2, close up of metal engraved plaque on fallen marker (March 2020).



Photo 5: Feature 3 (March 2020).



Photo 6: Feature 4 (March 2020).



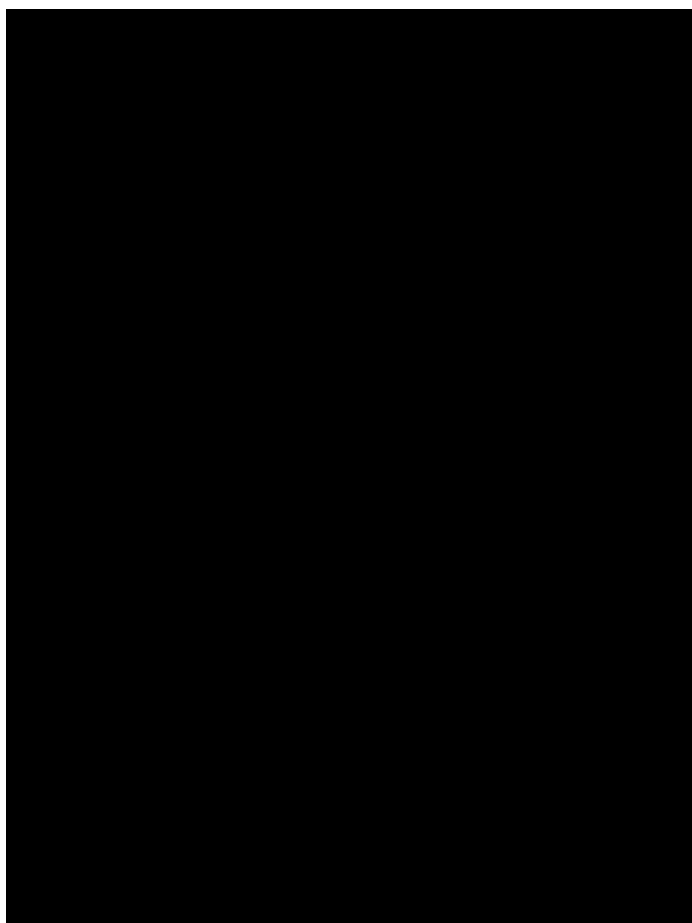
Photo 7: Feature 4, closeup of inscription (March 2020).



Photo 8: Feature 5 (March 2020).



Photo 9: Feautre 6 (March 2020).



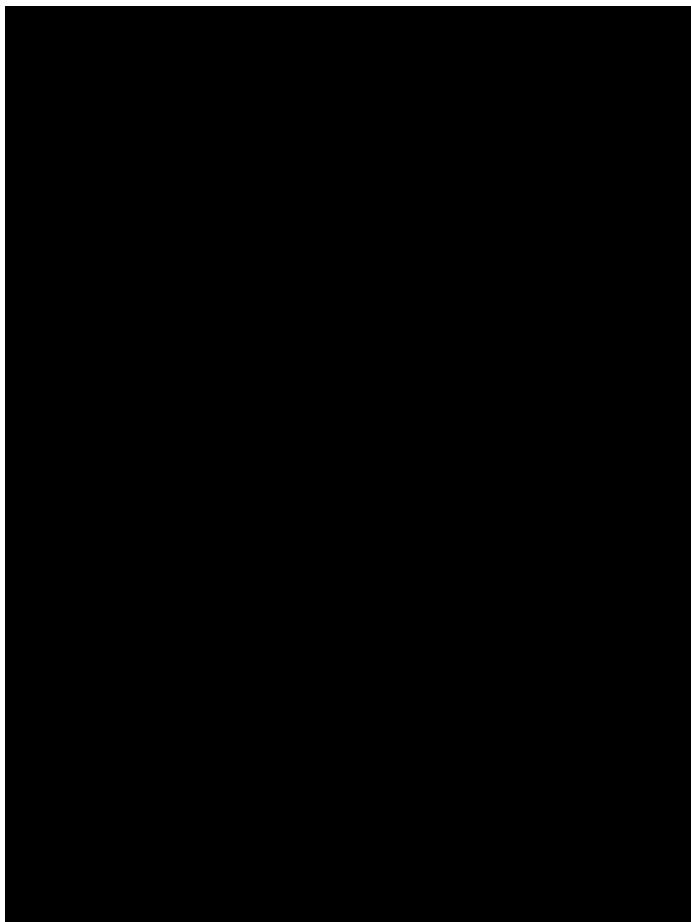
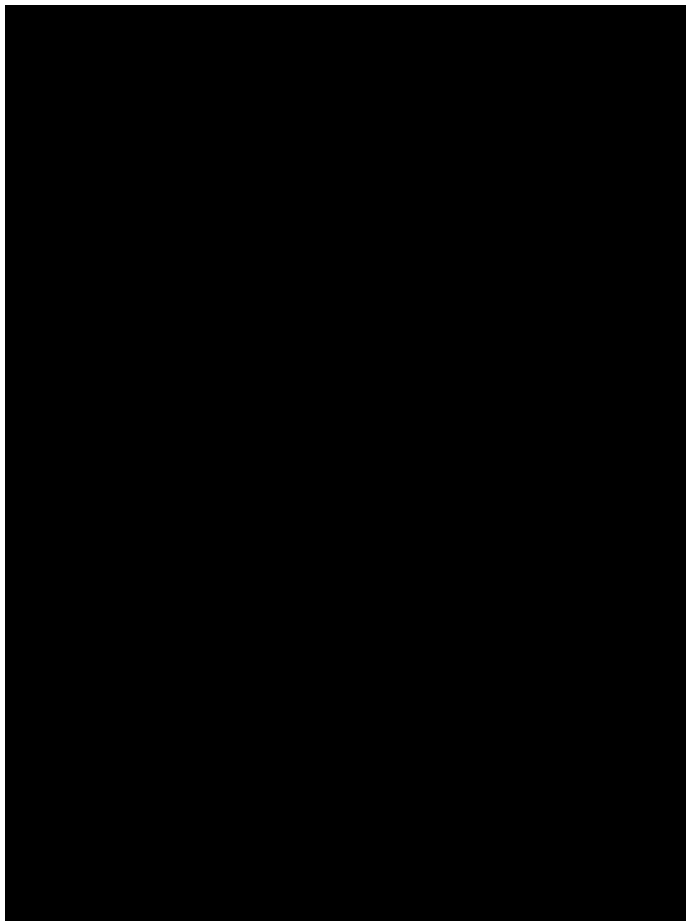


Photo 12: Feature 8 (March 2020).



Photo 13: Feautre 8, ceramic vase or other vessel in ground near burial (March 2020).



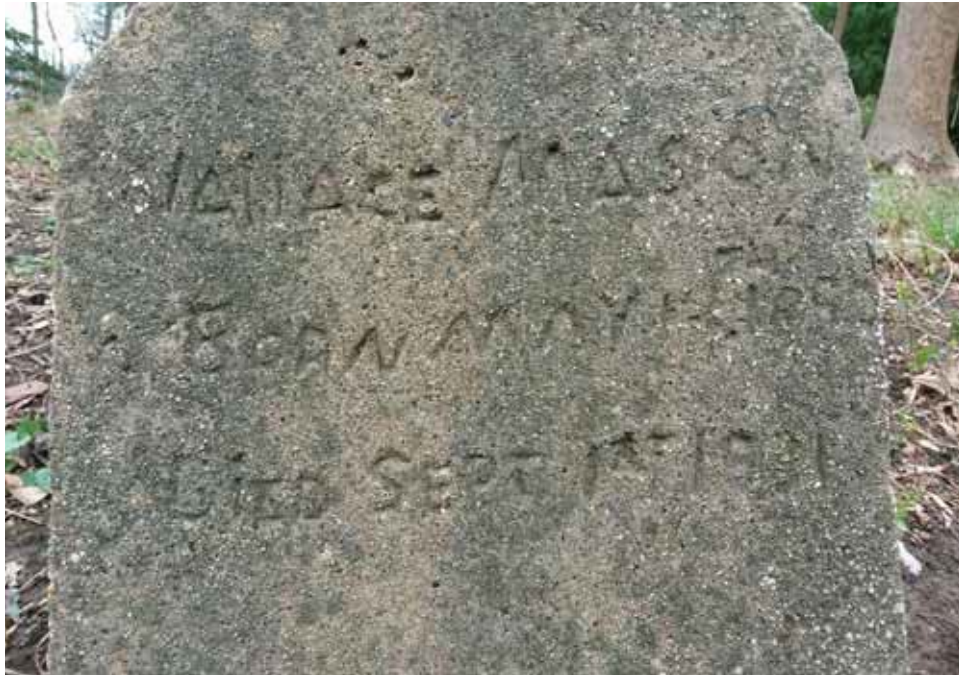


Photo 15: Feature 9 closeup of inscription (March 2020).



Photo 16: Feature 10 (March 2020).



Photo 17: Feature 11 (March 2020).



Photo 18: Feature 12 (March 2020).



Photo 19: Feature 13 (March 2020).



Photo 20: Feature 14 (March 2020).



Photo 21: Feature 15 (March 2020).



Photo 22: Feature 16 overhead view (March 2020).



Photo 23: Feature 16 facing east (March 2020).



Photo 24: Feature 17 (March 2020).



Photo 25: Feature 18 (March 2020).



Photo 26: Feature 18 closeup of inscription (March 2020).



Photo 27: Overview showing Feature 6 in foreground, Feature 8 in center with associated grave depression and Feature 19 grave depression beyond.



Photo 28: Feature 20 (March 2020).



Photo 29: Feature 21 (March 2020).



Photo 30: Feature 21 closeup (March 2020).



Photo 31: Feature 22 (March 2020).



Photo 32: Feature 23 (March 2020).



Photo 33: Feature 24 (March 2020).



Photo 34: Feature 25 (March 2020).



Photo 35: Feature 26 (March 2020).



Photo 36: Feature 27 (March 2020).



Photo 37: Feature 28 (March 2020).



Photo 38: Feature 29 (March 2020).



Photo 39: Feature 30 (March 2020).



Photo 40: Feature 31 (March 2020).



Photo 41: Feature 32 (March 2020).



Photo 42: Feature 33 (March 2020).



Photo 43: Feature 34 (March 2020).



Photo 44: Feature 35 (March 2020).



Photo 45: Feature 36 (March 2020).



Photo 46: Feature 37 (March 2020).



Photo 47: Feature 38 (March 2020).



Photo 48: Feature 39 (March 2020).



Photo 49: Feature 40, showing associated depression (March 2020).



Photo 50: Feature 41 (March 2020).



Photo 51: Feature 42 (March 2020).



Photo 52: Feature 43 (March 2020).



Photo 53: Feature 44 (March 2020).



Photo 54: Feature 45 (March 2020).



Photo 55: Feature 46 (March 2020).



Photo 56: Feature 47 (March 2020).



Photo 57: Feature 48 (March 2020).



Photo 58: Feature 49 (March 2020).



Photo 59: Feature 50 (March 2020).



Photo 60: Feature 51 (March 2020).



Photo 61: Feature 52 (March 2020).

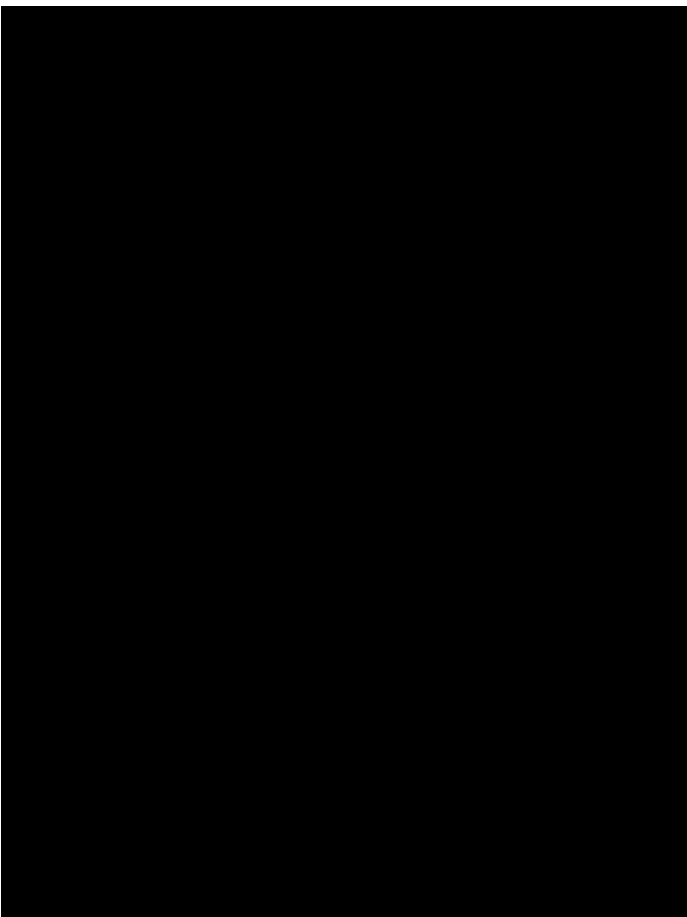




Photo 63: Feature 54 (March 2020).



Photo 64: Feature 55 (March 2020).



Photo 65: Feature 56 (March 2020).



Photo 66: Feature 57 (March 2020).



Photo 67: Feature 58 (March 2020).



Photo 68: Feature 59 (March 2020).



Photo 69: Feature 60 (March 2020).



Photo 70: Feature 61 (March 2020).



Photo 71: Feature 62 (March 2020).



Photo 72: Feature 63, flowers and grave depression (March 2020).



Photo 73: Feature 64 (March 2020).



Photo 74: Feature 65 (March 2020).



Photo 75: Overview showing Feature 67 in foreground with scale and Feature 66 in background, both are grave depressions.



Photo 76: Feature 68 (March 2020).



Photo 77: Feature 69 (March 2020).



Photo 78: Overview showing Feature 70 in foreground with scale and Feature 71 adjacent with stone (March 2020).



Photo 79: Feature 72 (March 2020).



Photo 80: Overview showing Feature 73 in foreground with scale with Feature 74 adjacent in the background, both are depressions (March 2020).



Photo 83: Feature 77 (March 2020).

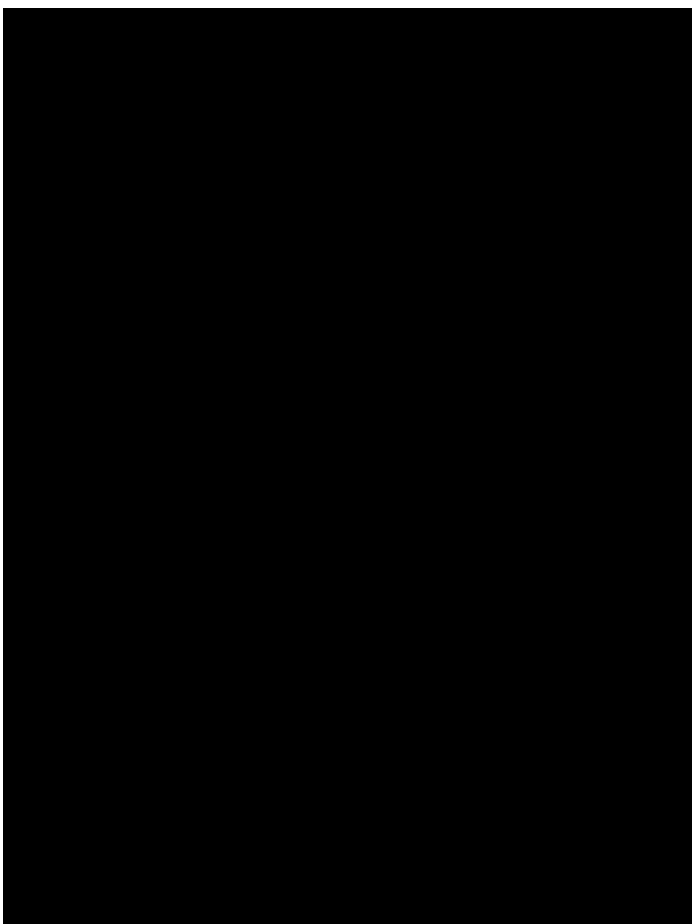




Photo 85: Overview photo of row of grave depressions including Features (in order from foreground to background) 84, 83, 82, 81, 18, 80, 96, and 98 (March 2021).



Photo 86: Feature 86 (March 2020).



Photo 87: Feature 87 (March 2020).





Photo 89: Overview of Features 90 through 95 (March 2020).



Photo 90: Feature 97 (March 2021).



Photo 91: Feature 99 (March 20201).



Photo 92: Feature 100 (March 2021).



Photo 93: Feature 101 (March 2021).



Photo 94: Feature 102 (March 2021).



Photo 95: Feature 103 (March 2021).



Photo 96: Feature 104 (March 2021).



Photo 97: Feature 105 (March 2021).



Photo 98: Feature 106 (March 2021).



Photo 99: Feature 107 (March 2021).



Photo 100: Feature 108 (March 2021).



Photo 101: Feature 109 (March 2021).

Appendix F

Appendix F:
Material Removed from the Cemetery During Clearing Activities

Description of Items in Pile	Items Removed
Wire fencing and cut logs	Wire fencing and cut logs
Rusted car door fragment	Rusted car door fragment
Metal framing, plastic flower pot, carpet	Plastic flower pot, carpet
Carpet, styrofoam, plastic lawn chair, mattress springs	Carpet, styrofoam, plastic lawn chair
vinyl, bed/furniture springs, PVC pipe sections, chrome pipe, plastic sheeting/bags	PVC pipe sections, chrome pipe



Photo 2: Portion of a rusted car door frame, which was marked for removal and removed from property (March 2021).



Photo 5: Carpet and styrofoam being removed (March 2021).



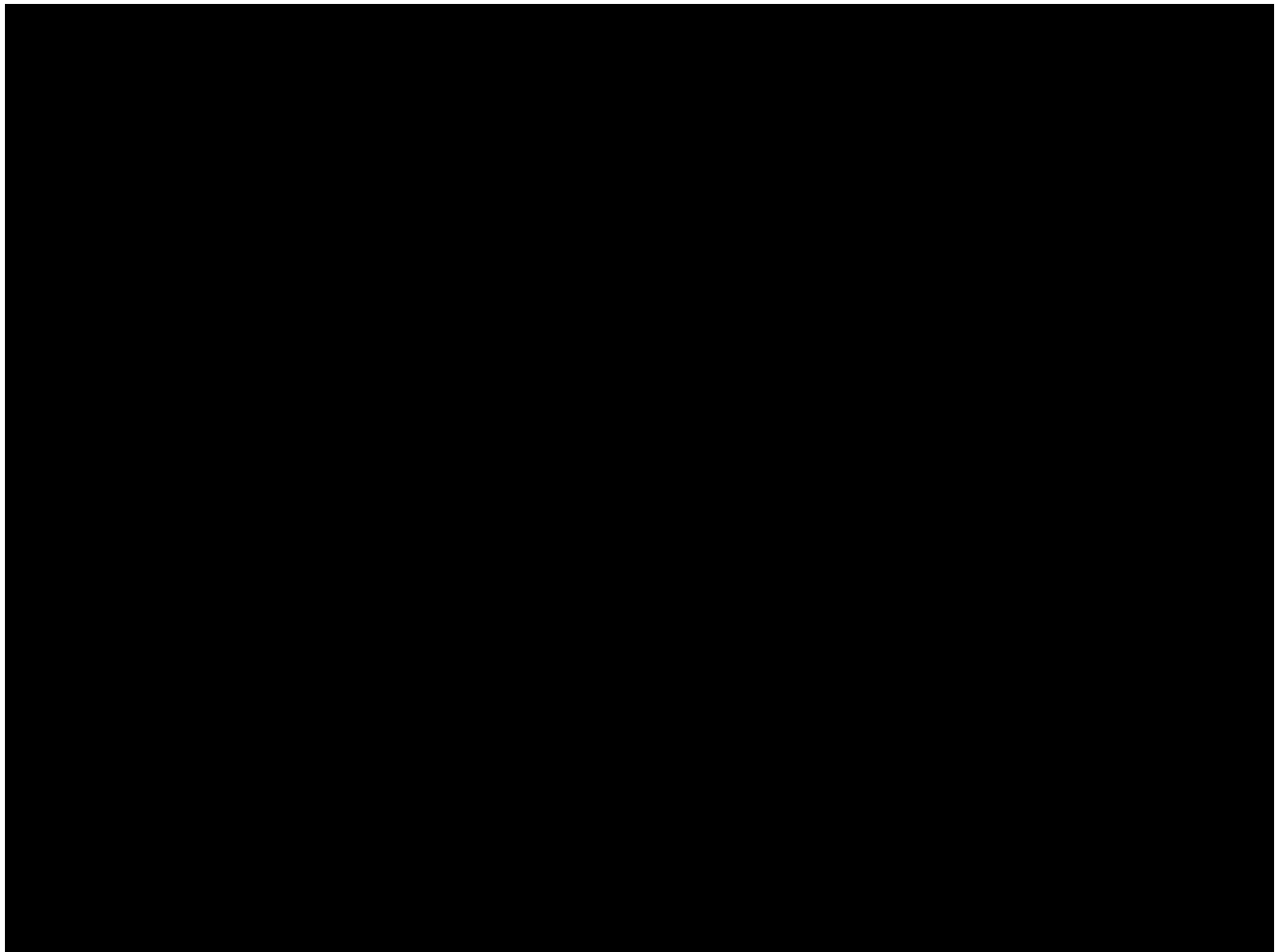


Photo 7: PVC and chrome pipe removed from the property (March 2021).

Appendix G

**Morningstar Tabernacle No. 88 Moses Hall and Cemetery
and
Gibson Grove A.M.E. Zion Church,
Cabin John, Montgomery County, Maryland**

Report on Geophysical Surveys, July 6-9, 2021



T.J. Horsley

August 2021



Horsley Archaeological Prospection, LLC

HAP2021-21

[This page intentionally left blank]

**MORNINGSTAR TABERNACLE NO. 88 MOSES HALL AND CEMETERY
AND GIBSON GROVE A.M.E. ZION CHURCH,
CABIN JOHN, MONTGOMERY COUNTY, MARYLAND.
Report on Geophysical Surveys, July 6-9, 2021**

Summary

High-resolution ground-penetrating radar (GPR) surveys have been conducted over areas at the Morningstar Tabernacle No. 88 Moses Hall and Cemetery and the historically related Gibson Grove A.M.E. Zion Church in Cabin John, Maryland, with the intention of detecting and mapping marked and unmarked graves at both locations.

At the Morningstar Cemetery an area of around 0.59 acres (0.24 hectares) was investigated using a GSSI UtilityScan GPR system with a 350 MHz antenna, corresponding to 5.8 miles (9.33 km) of data. The results indicate the location of 189 probable burials, and suggest a further 189 possible burials, the majority of which are seen to be arranged in rows. This total of 378 is likely lower than the actual total number of graves present. Despite efforts to clear and survey all accessible portions of the cemetery, it was not possible to collect data in some areas to adverse ground conditions and obstacles.

Importantly, these results reveal that subsurface anomalies interpreted as graves continue into the Maryland Department of Transportation State Highway Administration Right-of-Way (MDOT SHA ROW) [REDACTED]. While the exact number is difficult to define from these data, some 14 probable unmarked burials are indicated in this area. As many as 34 burials are suggested in total; however, most of the anomalies suggesting these likely have alternative, natural explanations.

At the Gibson Grove Church, a smaller area of around 0.058 acres (0.024 ha.) was investigated using a combination of a GSSI SIR-3000 and 200 MHz antenna and the GSSI UtilityScan system. These results clearly indicate the location of one probable unmarked burial [REDACTED] and suggest two possible burials in the same general area. To the [REDACTED] of the church, one possible and one tentative burial are suggested.

This report includes a description of the methodology and the results, plus a selection of GPR time-slice images to illustrate the findings from both sites. Interpretation maps are also provided to assist with ongoing management of these historic burial grounds.

Cover photo: View looking west across the Morningstar Cemetery during the GPR survey, July 9th, 2021. The remains of the Lodge are seen in the foreground. Photo: author.

T.J. Horsley, Ph.D.
Horsley Archaeological Prospection, LLC
518 Park Avenue
DeKalb, IL 60115
timhorsley@gmail.com
www.archaeopros.com

[This page intentionally left blank]

**MORNINGSTAR TABERNACLE NO. 88 MOSES HALL AND CEMETERY
AND GIBSON GROVE A.M.E. ZION CHURCH,
CABIN JOHN, MONTGOMERY COUNTY, MARYLAND.
Report on Geophysical Surveys, July 6-9, 2021**

1. Introduction

- 1.1 Horsley Archaeological Prospection, LLC, (HAP), has conducted non-invasive geophysical surveys across areas at the Morningstar Tabernacle No. 88 Moses Hall and Cemetery (hereafter referred to as the *Morningstar Cemetery*), and the historically related Gibson Grove A.M.E. Zion Church (hereafter referred to as the *Gibson Grove Church*), [REDACTED] in Cabin John, Montgomery County, MD (see Figure 1). In addition to surface evidence for some 66 graves in the Morningstar Cemetery (Falchetta *et al.* 2021), there is a high potential for unmarked burials at both locations. While no grave markers are present at the Gibson Grove Church, anecdotal evidence suggests three unmarked graves may be present [REDACTED], and a note to that effect was included on the 1961 Maryland Department of Transportation State Highway Administration Right-of-Way (MDOT SHA ROW) plat. At the Morningstar Cemetery there are concerns that burials may have formerly extended beyond the modern chain-link fence into the current MDOT SHA ROW alongside I-495. It was hoped that high-resolution ground-penetrating radar (GPR) surveys would help to provide a map of the locations of burials at these two historic burial grounds and assist in their future management and interpretation.

The surveys were undertaken in response to a request from A.D. Marble for Maryland Department of Transportation State Highway Administration (MDOT SHA).

- 1.2 The GPR surveys were conducted with the primary aim of identifying and mapping the locations and extent of interments associated with the Morningstar Cemetery and Gibson Grove Church, as well as any other potentially significant subsurface cultural features.

- 1.3 The survey at the Morningstar Cemetery [REDACTED]
[REDACTED] as much of the accessible sections of the cemetery were included as practically possible, and clearance in advance of and during the survey helped to expand the survey area. Despite this, GPR data could not be collected in some areas due to dense clumps of invasive bamboo stems, hay bales, demolition debris associated with the former lodge building, as well as areas of dense vegetation and a fallen tree. [REDACTED]

[REDACTED] Within the main cemetery, the survey extended west and south to the modern property fences. To the east the survey was limited by undergrowth, the fence, the artificial berm, and the remains of the lodge. In total, an area of around 0.59 acres (0.24 hectares) was investigated at the Morningstar Cemetery. Details of the survey area are shown in Figures 2 and 3.

1.4 The Gibson Grove Church survey

The survey extended as close as possible to the church and additional office structure as extant trees, a fallen tree, and cuts around the church would allow. To the west the survey was limited by trees and dense vegetation along the current fence. A fallen tree to the west of the church prevented the main survey area from extending south to the west of the office structure. Separate GPR transects were therefore collected in this area to ensure inclusion of as much accessible area as possible (see Figures 22 and 23). An area of around 0.058 acres (0.024 ha.) was investigated in this way.

1.5 The soils within the Gibson Grove Church survey area are described as the well-drained Brinklow-Blocktown channery silt loams (USDA-NRCS n.d.). These are also found in the northwestern portion of the Morningstar Cemetery, while the majority of this burial ground is situated on the deep, well-drained Glenelg silt loam (see Figures 2 and 22).

The typical Glenelg silt loam is composed of a silt loam Ap horizon between 0-8" (0.0-0.2m), over clay loam Bt1 and Bt2 horizons from 8-30" (0.20-0.76m), and loam BCt and CBt layers from 30-54" (0.76-1.37m). These overlay a channery fine sandy loam from 54-76" (1.37-1.93m), forming on residuum derived from mica schist (*Ibid.* n.d.).

Typical Brinklow channery silt loams are composed of a channery silt loam Ap horizon between 0-10" (0.00-0.25m), over a channery loam Bt,BC horizon between 10-25" (0.25-0.63m). Lithic bedrock is typically below 25" (0.63m) but can range from 20-40" (0.51-1.02m). The typical Blocktown channery silt loam is described as a channery silt loam from 0-6" (0.00-0.15m) over an extremely channery silt loam from 6-17" (0.15-0.43m). Bedrock lies below this, although it may begin at a depth of between 10-20" (0.25-0.51m). Both soils form on gravelly residuum weathered from low base phyllites and schists.

The deep Glenelg silt loam underlying much of the Morningstar Cemetery presents reasonably good conditions for GPR. The presence of clay-rich layers between 8-30" (0.20-0.76m) can limit the effective depth of investigation due to attenuation of the GPR signal; however, previous work by HAP in similar environments has shown that such layers can help to reveal grave shafts, thereby aiding in the recognition of burials (Horsley 2019; 2020).

Conversely, the shallow Brinklow-Blocktown channery silt loams underlying the Gibson Grove Church and parts of the Morningstar Cemetery do not generally present favorable conditions for GPR. These stony soils produce a lot of small-scale reflections that result in "noisy" data within which it can be challenging to recognize and distinguish cultural anomalies - especially subtle reflections caused by historic inhumations. With bedrock typically at a depth of just 10-20" (0.25-0.51m), it would seem unlikely that burials will be present within Brinklow-Blocktown channery silt loams. However, it is quite possible that the soil boundaries shown on the soil maps (and see Figures 2 and 22) are inaccurate, although if present, the presence of these shallow channery soils and shallow bedrock within the survey area could help to indicate an absence of burials.

- 1.6 This area is located in the Hampstead Upland District of the Harford Plateaus and Gorges Region, within the Piedmont Plateau Province. Both sites are underlain by Boulder Gneiss of the Wissahickon Formation: a pebble- and boulder-bearing metamorphic rock, typically a medium-grained gneiss or schist (Cleves *et al.*, 1968; Reger & Cleves, 2008).
- 1.7 The enclosed portion of the Morningstar Cemetery survey area is mostly a wooded burial ground. Until earlier in 2021 when it was cleared, the northern section had been completely overgrown with invasive bamboo. Survey obstacles included trees and existing grave markers, as well as areas of dense bamboo stems, hay bales, and the remains of the former lodge structure. The survey was conducted across all accessible ground, but in some places it was impossible to push the GPR cart around in order to collect data. The small survey area beyond the chain-link fence to the north was mostly clear and low grass, with one small pine tree and a former concrete sign base the only obstacles.
- The Gibson Grove Church survey area was confined to the open, mown grass area to the south of the church. The survey extended as far as trees, dense vegetation, and the steep topography allowed.
- 1.8 The geophysical surveys were undertaken between July 6th-9th, 2021. Weather conditions both prior to and during fieldwork were generally good for GPR survey, although heavy rains on July 8th altered the soil moisture and caused a change in the geophysical contrast. This is apparent in the results from the Morningstar Cemetery, although it does not appear to have adversely affected the data quality.

2 Geophysical prospection methods

- 2.1 Geophysical methods include a range of non-invasive techniques for detecting subsurface disturbances associated with buried remains. It is important to note that these techniques do not detect the features themselves, but rather physical variations – or *anomalies* – that require interpretation. For a buried feature to be detected there must therefore be some degree of physical contrast between it and the natural soil and subsoil that surrounds it; if no such contrast exists, that feature will effectively be invisible. It should also be noted that different subsurface situations may give rise to very similar, if not identical, above-ground geophysical anomalies. The interpretation of such results therefore requires experience working with shallow geophysical data, and familiarity with archaeological and natural features and deposits. Interpretation may also draw on excavation and other archaeological evidence that can aid in the identification of specific feature types, materials, and depths. Only through investigation using more intrusive methods can datable artifacts and material be obtained, and causative features be accurately determined.
- 2.2 Many archaeological features exhibit physical contrasts to natural soils and sediments, either through the addition of foreign material into the soil (e.g., building materials such as bricks and rocks), or by altering the soils and subsoils (e.g., conversion of magnetic properties through heating, or the silting up of cut features such as pits and ditches). A selection of geophysical techniques is available for archaeological prospection, including magnetometry, electrical resistance, and GPR. Each method measures a different physical

property and therefore a particular method or combination of methods may be chosen that will be best suited to the conditions at a given site.

- 2.3 GPR is a relatively new addition to the geophysical archaeologist's toolkit, being greatly enhanced by dedicated computer software for processing and display, as well as a better understanding of the types of environments where this method can be applied successfully. In contrast to most other methods, GPR has the potential to provide information on the depth of subsurface remains by recording energy reflections from sub-horizontal features (such as cultural layers, soil horizons); vertical features (e.g., trenches, foundations); and discrete bodies (such as rocks and boulders). Where conditions allow different features to be resolved it can be possible to identify vertical relationships between them. Since the energy reflections occur where there is a change in the velocity of the emitted GPR energy, such as between different materials, soil textures, or water content, it may not be possible to detect features where there is a gradual transition or no contrast from one material to another.

Of the range of archaeological features commonly encountered, burials present difficult targets for geophysical prospection methods as there may be little contrast to allow their detection. Bones are too small to be detected with any method and, despite digging of the grave and interment of a casket, wrapped body, or other human remains, the grave is usually immediately backfilled with the same material that was removed, reducing the potential for a geophysical contrast. Despite this, previous investigations have shown that graves may be located by: (i) identifying disruptions in the natural stratigraphy of the soil; or (ii) by detecting the less-compact soil of the grave fill; or (iii), if present, by detecting an air-filled cavity. In general, however, over time this contrast is reduced such that older burials may be impossible to distinguish. Successful results therefore depend on a number of factors, including the nature of the soils and sediments at a site, the age of the burials, and the surveyor's experience in analyzing such data.

One of the most useful aspects of GPR for archaeological investigations is the ability to produce *amplitude time-slices* – horizontal plans that correspond to different depths below the ground surface that more closely resemble archaeological plans. When used in combination with the individual radar profiles, interpretations can be produced for different depth ranges. Further details on this method are provided in Appendix 1.

3. Methodology

- 3.1 In order to accurately locate any resulting anomalies, geophysical surveys are undertaken over a regular grid. This also ensures that data are collected evenly and consistently across the survey area. For these investigations a combination of arbitrary grids and differential Global Positioning System (DGPS) was employed depending on the site conditions. The dense tree canopies at both sites prevented DGPS from being used to georeference the GPR data during collection across the entire area, with data instead being collected along tapes with start and end coordinates manually recorded for each file.

At the Morningstar Cemetery, an arbitrary grid was established based on the NW corner of the enclosed burial ground. A N-S baseline was established 0.5m to the east of the western chain-link fence between the cemetery and the residential property. From this, tapes were

used to extend a survey grid across the area of interest. For the ROW area to the north of the chain-link fence a DGPS was employed to simultaneously obtain accurate location information and georeference the data. Two *Emlid Reach RS2* GPS units were used to collect GPR data. This was subsequently tied into existing site features (including extant fence corners, ROW stakes, previous survey datum points) and the arbitrary site grid to ensure accurate geolocation of the results. The survey grid and all geophysical data measurements employ the metric system.

For the Gibson Church survey, an arbitrary grid was established from the NE corner of the church structure. An E-W baseline was extended from this point running west along the north side of the building. Tapes were used to extend the grid across the area of interest.

- 3.2 At the Morningstar Cemetery the GPR investigation was conducted using a GSSI UtilityScan ground-penetrating radar system with a digital 350 MHz antenna. To allow confident identification of subtle burial reflections associated with burials, GPR profiles were collected along parallel transects spaced 0.25m (~10”) apart. This close spacing—as well as the N-S transect orientation perpendicular to the marked burials—increases the number of profiles that pass over each grave, thereby improving the likelihood of their identification.

Data were collected along each traverse in alternate directions, (i.e., grid south to north, then north to south), and individual radar samples were recorded at 0.016m (0.66”) intervals along each transect.

In this way, GPR transects totaling 9.33 km or 5.8 miles were collected, covering an area of 0.59 acres (0.24 hectares).

- 3.3 For the Gibson Grove Church investigation a GSSI SIR-3000 ground-penetrating radar system with 200 MHz antenna was used to collect the area survey data, with the GSSI UtilityScan and 350 MHz antenna employed for the additional transects. In general, HAP has found the 200 MHz antenna to be more effective at detecting grave shaft anomalies, although this system is much larger and more cumbersome. This survey was conducted first, and since review of the data did not reveal any clear benefit using this antenna it was decided to switch to the pushcart of the UtilityScan system.

To the west of the church [REDACTED] GPR data were collected along parallel transects oriented N-S. For the narrower spacing to the north of the church the data were collected along traverses aligned E-W. Each transect was spaced 0.25m (~10”) apart, with radar samples again recorded at 0.016m (0.66”) intervals.

This GPR survey covered an area of 0.058 acres (0.024 ha.), resulting in a total of 0.6 mile or 0.96 km of data.

- 3.4 All GPR data were collected and recorded onto the dedicated data recorder and subsequently downloaded onto a PC. Data processing was undertaken using GPR-SLICE v7.0. Minimal treatment was undertaken prior to the production of time-slices, limited to a standard procedure of *time-zero correction* and *gain correction*. Following initial analysis of the time-slices, additional processing steps included *Kirchoff migration* to collapse hyperbolic reflections back into point source reflections, and applying a *Hilbert transform*

to convert the sinusoidal radargram pulses to simpler positive pulse envelopes. These additional steps aided analysis of the results, and reference was made to all processed data during analysis and interpretation.

- 3.5 To allow conversion of two-way travel time to real depth, the average velocity of the ground was found by matching computer-generated hyperbolae to the data. This velocity is specific to different sediments and water content, and for both survey locations it was found to be around 0.075 m/ns. It is worth noting that this is the average velocity for the entire profile, and the component velocities will be different for different materials, such as asphalt, topsoil, subsoil, feature fill, as well as variations in water content. Therefore, the calculated depths given here should be taken as approximations but are expected to be within 10-20% of the actual depths.
- 3.6 Following processing, the individual radargrams were combined to produce a 3-dimensional block of data. This was then ‘sliced’ horizontally to produce the amplitude time-slices corresponding to different depths within GPR-SLICE. Slices of 0.1m (4”) thickness were produced from the ground surface down to 2.0 meters below surface (m.b.s.), corresponding to around 7 feet. These time-slices allow the horizontal relationships between reflections to be more easily identified, and both radargrams and time-slices were consulted to produce the interpretation presented here.
- 3.7 GPR time-slices were subsequently imported into *ArcView*, a Geographical Information System (GIS) package to allow the results to be georeferenced and integrated with maps of surface features, as seen in the accompanying figures.

4 Limitations of GPR

- 4.1 It is important to stress that there are limitations with GPR for the detection of historic burials or other subsurface cultural remains. As indicated in Section 2, GPR relies on distinctive, measurable contrasts in electrical conductivity between the buried remains and the natural soils surrounding them. If the contrast is too small, due to a small target feature or decomposition/degradation or collapse of material within the burial and grave shaft, the GPR reflection may be too weak to recognize and the burial can be missed.
- 4.2 The nature and condition of the ground surface affects the quality of GPR data and the depth of penetration of the radar signal. Sites covered with concrete, gravel, high grass, trees and bushes, landscaped features, debris, obstacles, etc. limit the survey access and the coupling of the GPR antenna with the ground. These can lead to gaps in the survey and archaeological interpretation where data collection was not possible. They can also limit the effectiveness of the survey and usefulness of the results by reducing the ability to distinguish anomalies of interest.
- 4.3 The GPR antenna frequency determines the smallest dimensions of buried feature that may be detected, as well as the maximum exploration depth (also see section 4.4). Higher frequency antennas provide increased horizontal and vertical spatial resolution, but for

limited depths. Conversely, lower frequency antennas offer greater exploration depths but at the expense of spatial resolution. For the investigation of burial grounds, HAP has found the frequency range of 200-450 MHz to produce the most useful data. Decisions on which antenna to employ are usually made after inspection of site conditions and on-site testing with different equipment.

- 4.4 The maximum depth of exploration is also dictated by the electrical conductivity of the ground since this property determines the attenuation of the GPR signal. Wetter, more conductive materials (e.g., clay-rich soils) can significantly reduce GPR penetration to the point where no signal is reflected. Consequently, buried cultural features might not be detected in clay-rich environments.
- 4.4 The distance between GPR transects is decided based on the size of the targets: in the case of graves, a traverse interval of 0.25m (<10") is chosen and, when possible, these are aligned perpendicular to the anticipated predominant orientation of burials. This ensures multiple passes across adult and child inhumations. Features with dimensions smaller than the traverse interval may be missed.
- 4.5 In the accompanying figures, a distinction is made between detected anomalies and their archaeological interpretation. All anomalies considered potentially significant are highlighted in one image, with possible interpretations presented in a separate interpretation of GPR anomalies. This interpretation map is produced based on analysis of all GPR data collected for this investigation, as well as the author's experience in working on similar sites in similar environments. However, it should be cautioned that this represents one interpretation of the data. Furthermore, it is possible that some cultural features may be undetectable using the equipment and methodology employed here for the site conditions at the time of survey.

5 Morningstar Cemetery Results - Figures 4-23

- 5.1 Figures 4-19 show *amplitude time-slices* to illustrate the results obtained by this survey at different depths. Each slice is 0.1m (4") thick, and they are shown from the ground surface to a depth of 1.6 m.b.s. (meters below surface) (around 63" or 5' 3"). No significant anomalies were identified below this depth. The data are shown after processing described in Section 3.4 above, including both migration and Hilbert transformation.
- 5.2 As these figures illustrate, this GPR survey has detected numerous geophysical anomalies caused by a range of surface and subsurface disturbances. Many of these have distinctive characteristics that help to identify their origins (e.g., burials and tree roots), while some require analysis of both time-slices and the individual radargrams. These are discussed in the following sections according to depth to provide more detail on the nature of the results obtained in this investigation.

5.3 A quick glance through the time-slices reveals that several burials are strongly suggested on account of very strong (*high amplitude*) and distinctive rectangular reflections. These are especially clear in Figures 10-16 as the dark gray to black anomalies caused by a void or air space associated with the casket. However, the majority of potential burials are discernable only as very subtle, *low amplitude* reflections. These are discussed in further detail in the following sections. Other GPR reflections are also visible, some relating to shallow disturbances such as soil compaction, structural debris, as well as the dendritic pattern of tree root anomalies.

5.4 As is commonly seen in such data, burials (and other features) lie at a range of depths below the ground surface and therefore do not all appear in a single time-slice. To aid interpretation and future reassessment of the results, a summary of significant anomalies from all depths has been produced from all the GPR profile and time-slice data. This color-coded image is shown in Figure 20 to illustrate patterns and the distributions of various GPR reflections. A final, simplified interpretation is presented in Figure 21 that combines all significant anomalies into one map.

For ease of interpretation, burials are divided into “*probable burials*” and “*possible burials*” depending on the confidence that such an interpretation can be made. This distinction is based on several characteristics of the geophysical anomaly (i.e., strength, dimensions, depth, and orientation), as well as its association with a grave marker or other similar anomalies. In the case of *possible burials*, other explanations are possible and cannot be ruled out, although it is more likely that the anomaly is burial related. A third category of anomalies – “*other feature/disturbance*” – includes GPR reflections that could tentatively be interpreted as being related to burials, but are more likely to have an alternative explanation (e.g., tree roots, animal burrows, natural soil variations). It should be noted that for these anomalies it is impossible to rule out inhumations as potential causes.

Possible grave shaft anomalies, highlighted as “possible cuts” in Figure 20, are another piece of evidence that can help to identify unmarked burials.

5.5 *The burials*

As noted above, this survey has detected burials due to a range of GPR anomalies of differing strength. Some burials are quite clearly defined and, while these could be identified as *definite burials*, this level of interpretation is avoided unless the source of the anomaly has been positively verified using another line of evidence or more intrusive means of investigation. Instead, high and medium amplitude rectangular reflections between 0.6-1.4 m.b.s. (24-55”) that are aligned approximately E-W and appear to form rows of burials are identified as *probable burials*. Figure 21 shows 189 such burials. Some of these reflections are notable clearer than others, and the greater contrast could indicate the presence of a subsurface void associated with a coffin, or possibly a burial vault or liner.

Possible burials are suggested by weaker GPR reflections that are likely associated with inhumations or ground disturbance caused by digging a grave shaft, although other explanations for these anomalies are possible. These include natural soil variations, tree roots, or disturbances caused by burrowing animals. An additional 189 possible burials are identified in Figure 21, producing a total of 378 probable and possible burials.

138 anomalies identified as *other feature/disturbance* are highlighted in Figure 21. These are more likely associated with root disturbances or natural soil variations, but it is impossible to rule out that they are caused by unmarked burials. Some of these subsurface features are only suggested by a possible cut, whereas others are very weak, amorphous reflections. Additional, more intrusive means of archaeological investigation would be required to better understand the origins of these anomalies, should that be deemed necessary.

It is possible that some burials have gone undetected in this survey, especially since it was not possible to collect data across the entire area of the cemetery due to obstacles. These numbers therefore likely represent an underestimate of the total number of graves. Not only are some of the burials identified here only distinguished by very weak anomalies or by the presence of grave cuts, at least four possible grave markers do not have any obvious burial anomaly associated with them. Furthermore, while this survey encompassed all accessible areas where it was practical to push the GPR around for data collection, it is quite possible that graves continue beyond these boundaries

This area would require a significant amount of clearing in advance of any future survey.

5.6 *Correlation with the surface mapping of burials*

Figure 22 presents the GPR interpretation with the locations of potential burial markers, and Figure 23 shows the results compared with inferred burial locations based on surface depressions and extant markers (after Falchetta *et al.* 2021, Figs. 3B-3D).

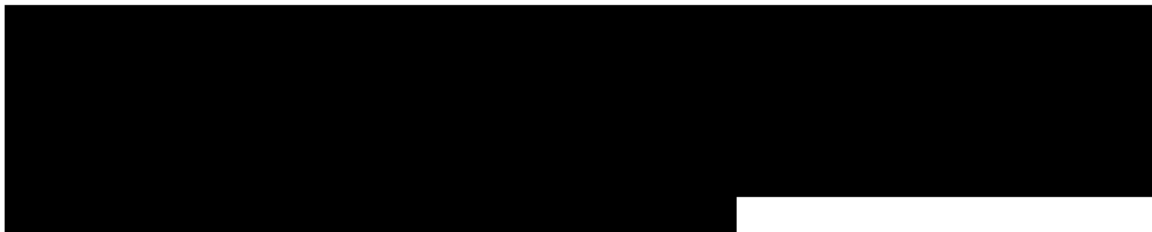
Of the 66 tier 1 burials identified in the earlier surface mapping of the cemetery (see Falchetta *et al.* 2021), it appears that around two thirds (43) coincide with a probable or possible burial identified in the GPR results (see Figure 23). In many of these instances, the locations of burials indicated by the surface and GPR surveys show correlation, with the two features overlapping completely. In other cases, there appears to be a slight spatial discrepancy, although part of the GPR anomaly coincides with the surface indication. In 6 instances it appears that a burial suggested above ground overlies two discrete GPR reflections indicating two separate interments. Given the dimensions and separation of the two GPR anomalies in these instances, it is more likely that they do indeed represent two burials rather than, for example, either side of a single interment. Decomposition and collapse of two closely spaced burials might be expected to produce a more significant surface depression and be more recognizable today.

Explaining the 23 burials suggested above ground but not detected in the GPR survey is more difficult. It is certainly possible that some burials are undetectable with this method and might therefore been missed (see Section 4 for discussion of limitation). It is also possible that some of the surface expressions suggesting burials could have other explanations, such as tree falls. Understanding the true total number of burials within this cemetery – and the causes of each GPR reflection – can only be achieved using more intrusive archaeological methods.

5.7 *Arrangement and extent of burials*

In general, the detected burials are seen to be arranged in several rows aligned north-south. Both burial anomalies and the rows of

the survey area, although the clearest *probable burials* have been detected throughout. There is no obvious correlation between the strength or clarity of the anomalies and their location with regards soil type, although topography may be a factor.



There is no clear evidence for burials within around 25' (~8m) of the former lodge, although this could in part be explained by their being obscured by noise and “ringing” reflections caused by surface and shallow debris associated with demolition of the lodge structure. This absence of burial features around Moses Hall may be real, reflecting a different use of the space closer to the lodge. (Further discussion on the historic use of the area around the lodge may be found in Falchetta *et al.* 2021, pages 80 and 86).

No obvious gaps or spacings between graves can be discerned that suggest internal paths, sections, or groupings of burials. Probable burials are quite closely spaced in adjacent rows, only 1-2 feet in places. In a few instances there may even be overlapping burials, although all of these include possible burials for which other explanations are possible. (These include collapse of voids between closely-spaced, adjacent burials, or the limitations of resolving separate, but closely-spaced anomalies in data collected along traverses spaced 0.25m apart.)

5.8 *Burials within the ROW*

While the absolute number of burials within the ROW is impossible to determine with confidence, there is strong evidence that graves continue into this area. 14 probable burials are identified in Figure 21, with an additional 13 possible burials highlighted. A further 7 other features/disturbance are shown, either fully or partially within this area. Together, this suggests as many as 27-34 unmarked graves with the ROW; however, this may be an over-estimate. In general, the GPR reflections in this area are weaker than other parts of the survey area; given the sensitivity of the ROW, great care has been taken to identify all potentially significant anomalies. It is quite possible that many of the possible burials are caused by other subsurface disturbances or natural soil variations, as well as the other feature/disturbance anomalies; however, it is impossible to rule out the presence of an unmarked burial in each case.

The difficulty in confidently identifying burials in this area might in part be related to a change in soil type. As described in Section 1.5 and Figure 2, Brinklow-Blocktown channery silt loams are present in this corner of the cemetery (although it should be cautioned that the soil maps may not be accurate at the scale shown). Channery soils produce increased noise levels due to the greater concentration of stony material; however, the GPR data from this area are not discernibly noisier than the rest of the cemetery. The weaker reflections here indicate a lower physical contrast (primarily conductivity) between the causative features and the surrounding soil. Several factors could cause such a reduction in contrast, including (i) a change in soil type; (ii) variations in soil moisture (that can be related to soil type and/or topography); (iii) the nature of the burial (i.e., casket vs. shroud);

and (iv) the state of preservation of the inhumation. While identifying which factors are the most significant is not usually possible solely based on the geophysical data in this instance it is likely a combination of at least (i), (ii) and (iv). As Falchetta *et al.* note, the top of the hill may have been the site of the earliest burials (2021), and consequently their associated anomalies would be expected to be weaker due to more advanced decomposition.

The GPR reflections suggesting probable and possible burials in this area begin at a depth of around 1' (0.3m) and extend to at least 4-5' (1.2-1.5m). While the remains of any inhumations are likely below at least 3', distinct soil variations associated with the grave shafts can be expected at a depth of 1' (0.3m).

5.9 *Other possible features*

Very few other anomalies of interest have been identified in this survey. As noted above, the area around the former lodge is characterized by many large and high amplitude reflections that are likely caused by demolition debris and other materials associated with this structure. Metallic material and near-surface air spaces can cause ringing of the GPR signal throughout the profile, and unfortunately this can mask potentially significant reflections. This includes possible additional structural elements. There is a slight indication of a buried wall 8ft to the south of the visible wall remains, however, this is far from conclusive evidence for an additional foundation. Further, more intrusive methods of investigation would be required to determine whether such a feature exists.

6 **Extension of the Morningstar Cemetery survey**

Several comments were provided on the draft of this report that was disseminated for review. The following section discusses the specific issues in turn and provides responses to some of the comments that were received. The accompanying photos (1-4) are provided to help demonstrate ground conditions prior to and during the GPR survey.

- 6.1 It is always preferable to survey beyond the known limits of any site to ensure that the edges are defined; this is part of HAP's standard methodology to the extent that is possible. However, at the Morningstar Cemetery it wasn't possible to extend the survey beyond what was examined, although survey was conducted wherever possible. [REDACTED] as much of the Area of Interest (defined in the original RFP) was surveyed as was both feasible and safe, and after consultation with MDOT SHA and A.D. Marble staff after an initial site walkover.

- 6.2 One comment suggested that the survey should be extended to the north, as far as the edge of paving, to include the beltway cut slope. [REDACTED]

It would be feasible to extend the GPR survey right up to the paving, however, it is unlikely that this lower part of the slope would provide meaningful results. Under current conditions, the vegetation and bumpy ground will reduce data quality. Clearing this would help but given the weak nature of possible burial anomalies identified on the nearby higher ground, it would likely be impossible to confidently identify potential graves in this area. More importantly, this slope appears to be the result of grading associated with construction of the highway and suggests that up to 4ft of soil may have been removed. Given that most of the detected probable and possible burials from this entire survey lie within the upper 1.4m (4.5ft), and within 1.1m (3.6ft) in the area to the north of the fence, if burials had previously extended this far north it is questionable whether any intact remains exist today.

- 6.3 It was asked whether it be appropriate to extend the survey farther to the east, where the strip of apparently undisturbed land between the Cemetery fence and the edge of paving becomes narrower, until there is no undisturbed terrain (Photo 3). This area was also discussed on site and it was decided to omit it. This was largely due to the bamboo stalks preventing the collection of useful data (as on the other side of the fence to the south), as well as some large rocks and other debris. This area could be cleared for survey; however, given that the AOI measures between roughly 6 and 12ft N-S, maybe up to 15ft, the resulting data would be of little use as a discrete narrow strip (foreground of Photo 2). Confidently interpreting any geophysical data improves with broader areas of coverage to help distinguish anomalies of interest from other types of disturbance. Evidently some of this narrow strip has been built up to maintain the grade of I-495, and it is unclear whether the remaining land has been cut to assist drainage. In short, GPR survey could be undertaken here, but it will require additional clearance and the results will very likely provide limited information.
- 6.4 The question was raised about extending the survey to the west. In the area to the north of the modern fence, the GPR survey extended westward as was feasible given the vegetation and ground conditions. This corresponded to around 3ft to the west of the AOI (defined as a northern continuation of the fence between the private residence and cemetery to the south) at which point the young conifers and other dense vegetation prevented data collection. It would be necessary to remove some or all these trees to ground level and cut back other vegetation to survey here. With only one "*possible burial*" detected [REDACTED] (see Section 6.5 and Figures 20-21), the existing GPR data suggest that this line marks the edge of the burial ground, but more coverage would help to confirm this.



Photo 1. Area between the former fence and I-495, looking east. January 13, 2021. Photo: A.D. Marble.



7 Gibson Grove Results - Figures 26-43

7.1 Figures 26-41 show *amplitude time-slices* to illustrate the results obtained by this survey at different depths. As with the Morningstar Cemetery results, each slice is 0.1m (4”) thick, and they are shown from the ground surface to a depth of 1.6 m.b.s. (meters below surface) (around 63” or 5’ 3”). The data are shown after processing described in Section 3.5 above, including both migration and Hilbert transformation.

7.2 As the time-slices illustrate, the GPR survey has detected several geophysical anomalies caused by different subsurface disturbances. A summary of significant anomalies from all depths has been produced from all the GPR profile and time-slice data and is presented in Figure 42. A final, simplified interpretation of possible burials is presented in Figure 43. Other, non-burial-related features may be present; however, this relatively small survey area prevents any confident interpretation.

7.3 *Evidence for unmarked burials*

As for the Morningstar data, the interpretation of potentially burial-related anomalies is divided between “*probable*”, “*possible*”, and “*other feature/disturbance*” depending on the confidence that such an interpretation can be made. In this investigation, one probable burial is suggested by a very distinctive high amplitude, rectangular reflection detected below 27” (0.7 m.b.s.). Given the shape, dimensions (c.6.8’ x 2.6’ / 1.9 m x 0.8 m), east-west orientation and depth of this anomaly – and the proximity to the church in an area where burials were suggested to have been present – it is highly likely that this represents an unmarked burial. No clear evidence for any other burials has been detected immediately adjacent to this one reflection on either side, although a *possible burial* is suggested [REDACTED] by a low amplitude reflection between c.40-47” (1.0-1.2 m.b.s.). Another *possible burial* has been identified [REDACTED] south of the probable burial; however, this reflection lies at the survey edge and may continue beyond it. (A fallen tree in this area prevented the area survey extending any further to the south.) Additional GPR transects do not provide further information that help to identify the cause of this anomaly with greater confidence. Neither of these possible burial anomalies is as clear as the probable burial and both could be caused by other soil variations or disturbances.

Other burials might be present in this area to the west of the church but might be masked by several reflections interpreted as being due to large tree roots and/or former tree locations.

To the [REDACTED] of the church, one *possible* burial and one *other feature/disturbance* have been identified. While no interments were expected in this area, characteristics of these reflections and the proximity to the church building make it impossible to rule out unmarked graves as explanations in either case. Alternative explanations for these and other shallow GPR reflections around the church include former tree or animal disturbances; however, they might be explained by earlier archaeological investigations conducted by Alexandra Jones (Jones 2010, in Falchetta *et al.* 2021: 42-43; Fig. 38). In addition to a dense shovel test pit (STP) survey (on a 2m grid), she excavated 6 1.5m x 1.5m units based on the STP results. The precise locations of these units are unknown. Given the depth of the one probable burial anomaly, this is not explained by an archaeological excavation unit.

7.4 *Comment on soils within the Gibson Grove Church survey area*

Interestingly, despite concerns about the channery soils at this site and the anticipated shallow bedrock, the GPR data indicate that the soils within the survey area are deep and would be suitable for digging graves of a sufficient depth. This also applies to the northwestern and southeastern portions of the Morningstar Cemetery where soil maps suggested the Brinklow-Blocktown channery silt loams were also present.

8 Conclusions

- 8.1 These geophysical investigations have successfully detected and mapped unmarked burials at both the Morningstar Cemetery and Gibson Grove Church using high-resolution GPR. Some burials are indicated by distinctive, high amplitude reflections, while others are suggested by very weak anomalies. This range in response can be caused by several factors, including the age, depth, and type of burial (e.g., adult vs. infant; casket vs. shroud, etc.), although sometimes it is impossible to determine the reason for the variations. The interpretations presented here are based on several characteristics of the GPR reflections and are divided according to the confidence with which they are identified. At both locations the GPR surveys included as much accessible ground as practical; however, due to various obstacles it was not possible to cover 100% of either area.
- 8.2 At the Morningstar Cemetery, 189 probable burials and 188 possible burials are identified. A further 138 tentative burials are suggested, although these are more likely explained by other soil variations or disturbances. The 377 probable and possible burials are mostly arranged into rows aligned roughly north-south. [REDACTED]
- While it is not possible to confidently identify every burial in the ROW [REDACTED] these results indicate that unmarked graves continue into this area. 14 probable burials have been identified, with a further 13 possible burials. 7 tentative burials are also suggested. Given the subtle nature of many of the anomalies in this area, it is recommended that topsoil stripping be undertaken to reveal grave shafts should it be necessary to identify every burial more confidently.
- 8.3 In the Gibson Church survey, there is strong evidence for one probable burial [REDACTED] where three unmarked burials had been suggested. Two other possible burials are suggested but are less clear. An additional possible burial and a tentative burial have been identified to the [REDACTED] of the church building.
- 8.4 Images of the GPR results are enclosed, along with interpretation plots to accompany the written descriptions of the results. It is anticipated that these maps will assist in the ongoing management and interpretation of this historic sites.

The results and subsequent interpretation of geophysical surveys should not be treated as an absolute representation of the underlying features. It is normally only possible to prove the nature of anomalies through intrusive means, such as trial excavations.

Acknowledgements

The author would like to thank Eddie Bankhead for his guidance and introductions to these properties; Charlotte Troup Leighton for allowing access across her property; Jen Falchetta for her assistance and good humor on site; and to the MDOT SHA crew who helped to clear countless bamboo stalks. Steve Archer (MDOT SHA), Julie Schablitsky (MDOT SHA), and David Clarke (FWHA) all provided useful comments on earlier drafts of this report. Finally, thanks are due to the Friends of Moses Hall and Cabin John Citizens Association for their comments and questions.

Fieldwork: T.J. Horsley

Dates of survey: 07/06 – 07/09/2021

Report: T.J. Horsley

Date of report: 10/27/2021

Bibliography (*This also refers to material cited in the appendix*)

- Falchetta, J., Slovinac, P., McCarthy Watts, K., Mikolic, F., and Stevenson, R. (2021). *Cultural Resources Technical Report. Documentation and Archaeological Monitoring for the I-495 & I-270 Managed Lanes Study. Morningstar Tabernacle No. 88 Moses Hall and Cemetery (M:35-212), Montgomery County, Maryland*. A. D. Marble. Archaeological Report Number 560.
- Bevan, B.W. (1991). The search for graves. *Geophysics*, 56(9): 1310-1319.
- Conyers, L.B. (2004). *Ground-Penetrating Radar for Archaeology*. Altamira Press, Walnut Creek.
- Conyers, L.B. (2006). Ground-Penetrating Radar, in J.K. Johnson (Ed.) *Remote Sensing in Archaeology: An Explicitly North American Perspective*. The University of Alabama Press, Alabama. 131-159.
- Gaffney, C. and Gater, J. (2003). *Revealing the Buried Past. Geophysics for Archaeologists*. Tempus Publishing Ltd., Stroud.
- Goodman, D., Nishimura, Y. and Rogers, J.D. (1995). GPR time-slices in archaeological prospection. *Archaeological Prospection*, 2: 85-89.
- Goodman, D. and Piro, S. (2013). *GPR Remote Sensing in Archaeology*. Springer, New York.
- Horsley, T.J. (2019). *Macedonia Baptist Church Cemetery, Bryans Road, Charles County, Maryland. Report on Geophysical Surveys, November 8-10, 2017*. Horsley Archaeological Prospection, LLC. HAP2017-23.
- Horsley, T.J. (2020). *Ridgley Methodist Church Cemetery, Landover, Prince George's County, Maryland. Report on Geophysical Survey, October 12-14, 2019*. Horsley Archaeological Prospection, LLC. HAP2019-27.
- King, J.A., Bevan, B.W. and Hurry, R.J. (1993). The reliability of geophysical surveys at historic-period cemeteries: an example from the Plains Cemetery, Mechanicsville, Maryland. *Historical Archaeology*, 27(3): 4-16
- USDA-NRCS (n.d.). *WebSoilSurvey*. U.S. Department of Agriculture: Natural Resources Conservation Service. Available online at: <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>

Appendix 1 - Ground-penetrating RADAR

Ground-penetrating RADAR, or GPR, involves the transmission of high-frequency radar pulses into the ground from a surface antenna. Where this energy meets discontinuities in the soil, such as a change in soil types and buried remains, some pulses are reflected back to a receiving antenna while others continue down to be reflected by more deeply buried changes. The elapsed time between the energy transmission and reflection provides information on the depth of buried targets and is used to produce a vertical slice through the ground – a *radargram*. Unlike other geophysical prospection techniques, such as magnetometry or earth resistance, this profile allows vertical relationships between deposits to be investigated. Furthermore, many closely spaced transects may be combined to form a three-dimensional block of data that can be re-sampled horizontally. This is used to produce a series of subsurface plans for increasing depths, referred to as *amplitude time-slices*. The depth penetration of the radar pulses is dependent on both the frequency of the antennas employed and the electrical conductivity of the soils and sediments. Lower frequencies may be used to provide deeper penetration, but at the expense of resolution.

Radargrams are measured in terms of time (two-way travel time of the radar pulse); however, it is possible to calculate real depth values if the velocity of the material through which the radar energy is travelling is known. This can either be achieved in the field or by fitting computer-generated hyperbolae to the data after data collection. Further information on this technique may be found in Conyers (2004; 2006), Gaffney & Gater (2003: 47-51, 74-76), Goodman et al. (1995), and Goodman and Piro (2013).

Whilst previous investigations have shown that GPR can often detect later historic graves (e.g. Bevan 1991; Conyers 2006; King et al. 1993), early historic and prehistoric graves are far more difficult to identify. If the fill of the grave itself is less compact than the surrounding sediments, the sides and base of the grave may be detected using GPR; however, the inhumations themselves are unlikely to produce any clear reflection. It is therefore not usually possible to distinguish between any detected pit anomalies and graves.

Historic features such as foundations, floor layers and rubble spreads, produce clearly identifiable radar reflections. Lenses and deposits of sand, gravel, or boulders will produce similar reflections, and distinguishing between them may be difficult and require additional information from other geophysical techniques or intrusive methods.

[This page intentionally left blank]

