

GEOPHYSICAL SURVEY USING GROUND- PENETRATING RADAR AT THE ZABRISKIE- SCHEDLER HOUSE

Village of Ridgewood, Bergen County, New Jersey

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EXECUTIVE SUMMARY

Richard Grubb & Associates, Inc. (RGA) conducted an archaeological geophysical survey using ground-penetrating radar (GPR) around the Zabriskie-Schedler House at 460 West Saddle River Road, Village of Ridgewood, Bergen County, New Jersey (Figure 1-1; Figure 1-2). The Zabriskie-Schedler House is listed in the New Jersey and National Registers (NR) of Historic Places (COE: 5/2/2014; SR: 8/13/2019; NR: 11/21/2019). The Zabriskie-Schedler House is listed under NR Criterion C and the period of significance extends from 1825 to 1924. This survey was performed as part of a larger Phase IB Archaeological Survey on the historic property.

The non-invasive survey focused on a 0.5-acre survey area immediately around the historic house. The survey work aimed to identify any potential archaeological features around the house, as well as direct further archaeological testing. The geophysical survey identified modern utilities and four potential archaeological anomalies around the house, including a possible shaft anomaly, the location of a septic tank, and landscaping features. Subsequent Phase IB archaeological testing around the house provided additional information which was compared to the geophysical results during post-fieldwork analysis. One GPR anomaly may reflect the presence of a concentration of artifacts.

RGA recommends targeted ground-truthing of two potential archaeological anomalies in order to ascertain their origin.

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1.0 INTRODUCTION

Richard Grubb & Associates, Inc. (RGA) conducted an archaeological geophysical survey using ground-penetrating radar (GPR) around the Zabriskie-Schedler House at 460 West Saddle River Road, Village of Ridgewood, Bergen County, New Jersey (Figure 1-1; Figure 1-2). The Zabriskie-Schedler House is listed in the New Jersey Historic Register (NJRH) and National Register of Historic Places (NRHP) (COE: 5/2/2014; SR: 8/13/2019; NR: 11/21/2019). The Zabriskie-Schedler House is listed under NRHP Criterion C, and the period of significance extends from 1825 to 1924. The house was erected circa 1825.

Since this Village of Ridgewood-sponsored project lies within the NJRH-listed John A. L. Zabriskie House property, an Application for Project Authorization (APA) must be prepared in accordance with the New Jersey Register of Historic Places Act (N.J.A.C. 7:4; Laws of 1970, Chapter 268). The archaeological work will be performed in support of the NJRH requirements.

Geophysical survey can identify subsurface features without disturbing the ground surface and provide the location of areas of archaeological interest, including foundations, buried utilities, or graves. The objective of this geophysical survey was to identify any potential archaeological resources around the historic house and create a scaled map of subsurface features. The results of this work will direct further archaeological testing, if required. The geophysical survey was performed in accordance with standard approaches to archaeological geophysics (Conyers 2006; Doolittle and Bellantoni 2009; European Archaeological Council 2016; Leach 2021; Lowry 2016).

Meagan Ratini, MA, RPA, served as Principal Investigator and meets the professional qualifications standards of 36 CFR 61 set forth by the National Park Service (Appendix A). Olivier Vansassenbrouck, MA, MSc, RPA, served as the Geophysical Specialist and conducted the GPR survey and completed the post-fieldwork data processing of GPR data. Mr. Vansassenbrouck authored this report and produced the report graphics. Meagan Ratini, MA, RPA, aided in data analysis and edited the report. Dr Emma Durham, RPA, edited and formatted the report. Copies of this report and field data, notes, photographs, and project maps are on file at the offices of RGA in Cranbury, New Jersey.

This report consists of a discussion of background research, environmental setting, GPR survey theory and methods, survey results and interpretations, and conclusions and management recommendations.

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
Project Location

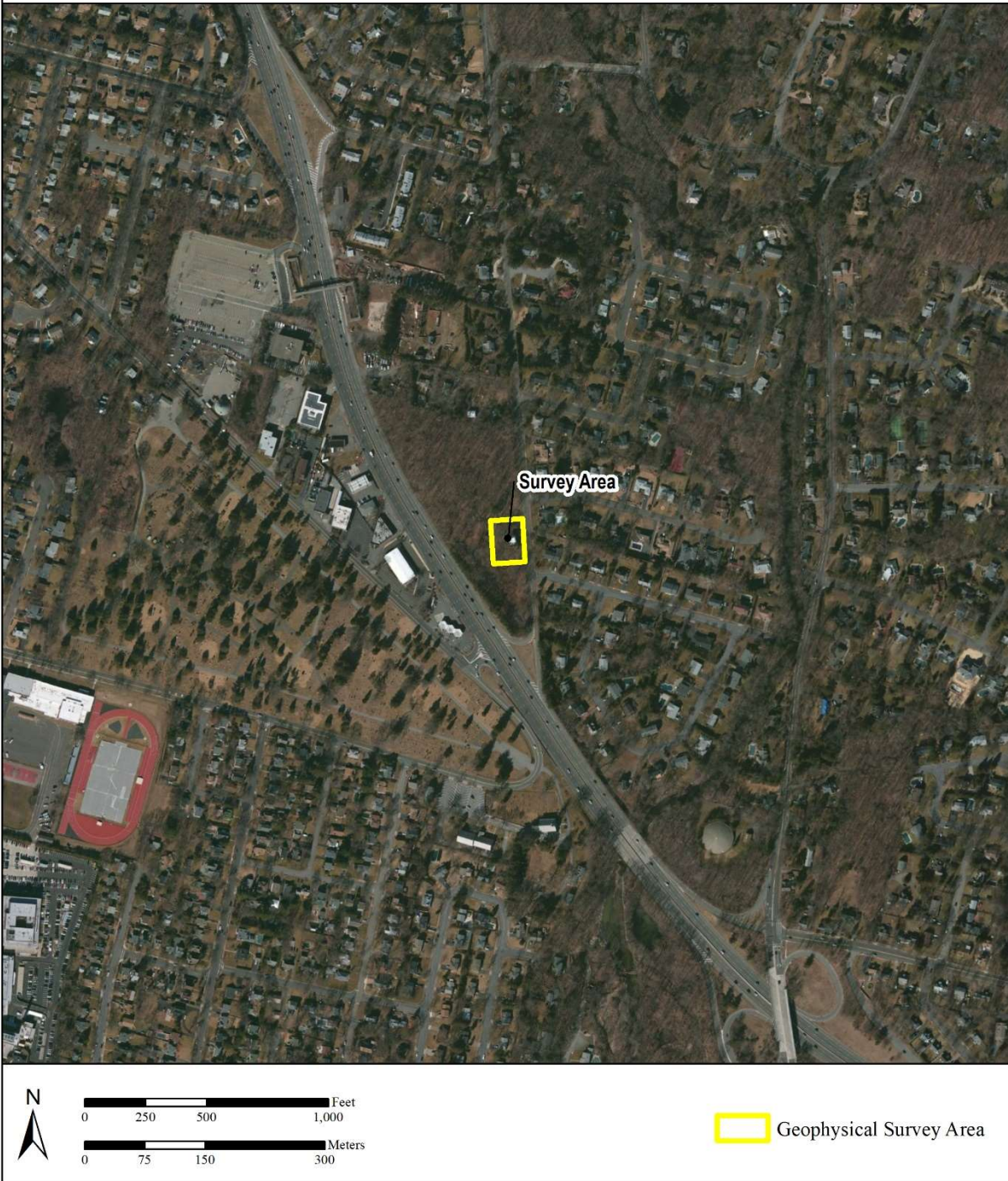


Figure 1-1: Project location on a modern aerial basemap (ESRI World Imagery 2023).

Zabriskie-Schedler House GPR Survey

Village of Ridgewood, Bergen County, NJ

Project Location

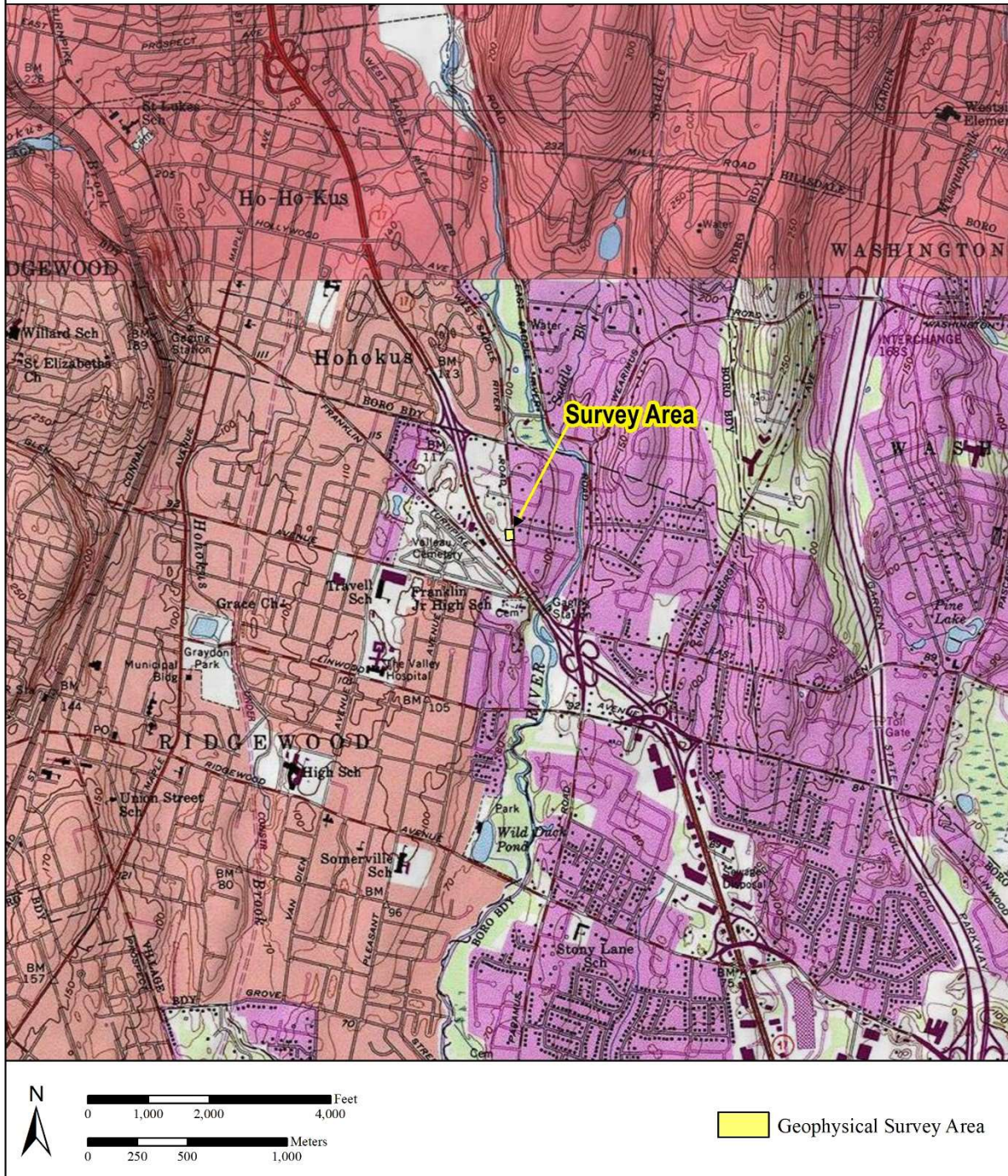


Figure 1-2: Project location on USGS map.
(1957 USGS 7.5' topographic quadrangle: Trenton East, NJ).

1.1 Previous Research

Hunter Research conducted a Phase IA Archaeological Assessment of the Zabriskie-Schedler House and property that concluded that the likelihood of encountering pre-Contact archaeological resources is low, as the site is situated over 1,000 feet from the Saddle River and has no prominent natural features or water sources (Hunter Research 2019).

For the colonial period, the Phase IA assessment concluded that while the property was part of the Paramus Reformed Church from 1750 onwards, there is no indication that the property was in use as anything but undeveloped agricultural land before the Revolutionary War. The church itself is located approximately 500 feet south of the geophysical survey area, at the site of the present-day church (Hunter Research 2019).

The Phase IA found multiple periods of activity at the church during the Revolutionary War, including a skirmish in 1780. Due to the Zabriskie-Schedler property's proximity to the church, the Phase IA assessment concluded that it is likely that some of these wartime activities extended onto the property and recommended a metal detector survey to investigate the potential military for artifacts on the property (Hunter Research 2019).

Historical background research conducted by Hunter Research identified the earliest permanent occupation of the site to be around 1825. This first house was expanded around 1840, with a U.S. Coast Survey Map showing the Zabriskie-Schedler House, two large outbuildings to the northwest of the house, and an orchard to the northwest of these outbuildings. Only one outbuilding can be seen on a 1913 Bromley Atlas and a 1930 aerial photograph; it was pulled down by the mid-1960s (Hunter Research 2019).

The Phase IA assessment concluded that there is a high potential for historic archaeological deposits related to the 200-year long occupation of the Zabriskie-Schedler house, in the form of trash scatters, middens, filled-in privies or wells, and the remains of outbuilding foundations. This was based on the relative lack of landscaping and ground disturbance found during Hunter Research's site visit. A GPR survey was recommended in order to indicate areas of archaeological sensitivity and locations of possible subsurface features.

1.2 Environmental Setting

The project location is situated within the Piedmont Lowlands Physiographic Province of New Jersey. This province is characterized by shales, argillites, sandstones, and siltstones punctuated by some igneous intrusions, including the Watchung Mountains and the Palisades Sill (Wolfe 1977). Piedmont terrain generally consists of a gently undulating surface that slopes gradually from the New Jersey Highlands to the Coastal Plain, with some areas of plateau-like topography and more resistant ridges.

Soils in the survey area consist entirely of Dunellen-Urban land complex, 3 to 8 percent slopes (DuuB). Dunellen soils are well drained and are found on outwash plains. Parent materials consist of coarse loamy outwash derived from sandstone. Urban Land (Dunellen Substratum) are found on outwash plains and consist of surfaces covered by pavement, concrete, buildings, and other structures underlain by disturbed and natural soil material (NRCS 2023).

The underlying bedrock formation is the Passaic Formation Conglomerate and Sandstone Facies, consisting of Lower Jurassic and Upper Triassic conglomeratic sandstone, feldspathic sandstone, and micaceous siltstone (USGS 2023).

Table 1-1: Typical Dunellen series soil profile (NRCS 2023).

Depth	Horizon	Texture
0–8 in (0.00–0.20 m)	A1	Sandy Loam
8–14 in (0.20–0.35 m)	A2	Sandy Loam
14–20 in (0.35–0.50 m)	Bt2	Clay loam
20–31 in (0.50–0.78 m)	Bt3	Silty clay loam
40–60 in (1.00–1.52 m)	C	Silty clay

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
Soils Information



Figure 1-3: Soils Information (ESRI 2023, NRCS 2023).

2.0 BACKGROUND ON ARCHAEOLOGICAL GEOPHYSICS

Geophysical survey methods, including GPR, are non-invasive approaches to identifying and mapping below-surface objects and unmarked graves and for visualizing the current topography of the ground surface in relation to these underground anomalies (Conyers 2006). These methods of remote sensing allow a glimpse into what may lie underground and can serve as one of many bases from which archaeological excavations can be undertaken. Geophysical survey methods are also used to identify prehistoric earthworks and monuments, fortifications and trenches on battlefield sites, graves, and spatial organization of early historic settlements, trading posts, farmsteads, and tavern sites, among others (Cornett and Ernenwein 2020; Ewen 2019; Heckman 2005; Horsley et al. 2014; Kvamme 2003).

It is important to note that: “The results and subsequent interpretations 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” (Horsley et al. 2014:10); therefore, geophysical anomalies must be subjected to ground-truthing methods to determine whether they represent cultural features or other subsurface manifestations (Ewen 2016; Hargrave 2006). A recent literature review indicates that there has been a general lack of ground truthing to test geophysical anomalies (WSP, Inc. and New South Associates, Inc. 2018).

2.1 Ground-Penetrating Radar (GPR) Theory

Ground-penetrating radar has been successfully utilized on historic and prehistoric archaeological sites for several decades in the eastern United States. GPR accurately maps the spatial extent of near-surface objects and features.

The antenna of a GPR unit transmits into the ground an electromagnetic wave, that operates in the microwave range of frequencies. The frequency of an antenna, such as the 350 MHz used in this survey, represents the center frequency of the antenna while the actual transmission is made up of a wide range of frequencies, in this case ranging from 125 MHz to 700 MHz. This wave of energy is emitted from a transmitter in the shape of a cone and reflects off sediment, rock, or buried materials and back to a receiver in the antenna. The reflected waves continually bounce between the subsurface and the receiver at the speed of light until the energy has dissipated due to a loss of heat and energy (Balanis 1997). As a result, the GPR antenna gathers a log of positive and negative amplitude reflections measured in decibels (dB) as well as a measurement of radar travel time in nanoseconds (ns). Across a GPR transect, each individual line scan is divided into 512 or 1024 samples, depending on the unit's settings, displaying the change in the amplitude of a reflection as depth, or time, increases (Evans 2003). These changes in amplitude of reflection and the changing speed of the radar wave as it moves through the subsurface are due to changes in the dielectric constant of the materials or sediments of the subsurface. For instance, radar waves travel fastest through air, which has a dielectric constant of 1, and slowest through water, which has a dielectric constant of 81. The dielectric constant of soils ranges from 10 to 40 given changes in clay, silt, and sand content as well as conductivity and moisture content (Daniels 2004).

Given this knowledge, GPR application and data interpretation rely on identifying anomalies which represent strong reflections of such changes in the ground during a survey. These black-white-black

(negative-positive-negative amplitude reflections) and white-black-white (positive-negative-positive amplitude reflections) series of reflective bands represent significant changes in the dielectric constant of materials and potential anomalies such as utilities, storage tanks, buried features, structures, or graves.

The results from GPR and other remote-sensing methods do not usually involve the identification of specific features, but rather the data provide differences in reflections from radar energy pulsed into the ground from the GPR antenna. As the pulses encounter varying subsurface features, they are reflected back to the GPR unit in varying degrees of strength and transmission time. Thus, changes in soil compaction and chemistry may transmit a contrasting signature that is different from the surrounding matrix. Transmission time is the amount of time it takes for the radar pulse to be reflected back to the receiving antenna and is interpreted as depth (i.e., the longer the transmission takes the deeper the object lies). The shape of the reflection may also give clues to the nature of a below-surface object. A hyperbolic shape in the profile usually suggests a single object, while a planar reflection may indicate a flat surface such as a floor or a change in stratigraphy (Conyers 2006).

Ground-penetrating radar units vary by antenna frequency. While soil properties, surface condition (for example, obstacles such as trees and shrubs or surface treatments such as hardscaping), and water retention may affect transmission and data resolution, in general there is a relationship between antenna frequency and resolution. Low-range frequency antennas (50–100 MHz) may penetrate as much as 15 m below surface under certain conditions. High-range frequency antennas (800–1000 MHz) may penetrate only 1 m but have extremely high resolution and are often used to locate buried utilities or items buried in concrete. Medium-range frequency antennas such as the 350 or 400 MHz are typically used in archaeology and are reliable to a depth of up to 3 m below the surface, depending on the surface conditions (Conyers 2006). The 350 MHz HyperStacking (HS) antenna is known to reduce noise via high-speed interpolated sampling (Kruske 2020).

Limitations include surveys in urban areas where buried and overhead utilities can produce too much “noise” to effectively identify archaeological features. Moist or waterlogged clay can impede GPR penetration or survey results (Kvamme 2003). Other limiting factors include natural anomalies such as iron deposits, soil composition and burn episodes, and wooded areas or large trees with extensive root systems that could trigger false positives (Chadwick and LaVigne 2019:104).

3.0 APPLICATIONS OF ARCHAEOLOGICAL GEOPHYSICS

3.1 GPR Methodology

3.1.1 Field Methodology

Ground-penetrating radar data was collected using a Geophysical Survey Systems, Inc. (GSSI) SIR 4000 control unit with a 350 MHz digital HyperStacking (HS) antenna (transmitter and receiver) mounted on a three-wheeled cart with a survey wheel for distance calibration. The survey grids were set up using stakes and measuring tapes. All grid corners were recorded with a Trimble R12i RTK base and rover paired with a rugged Trimble field controller running Trimble Access 2020 for centimeter-level accuracy. A total of six grids of varying sizes (see Figure 3-2, Figure 3-1 and Table 3-1) were established to collect data around the historic house. The combined survey area covered an approximately 40 by 54 m (131 by 177 feet) area. All grids were collected at a 0.5 m (1.64 feet) parallel interval, customarily used on historic sites (Leach 2021:48).

Obstacles to survey, such as trees, brush, fencing, large rocks and various landscape features, caused some unintended gaps in the data (see Plate 3-3 to Plate 3-5).

Table 3-1: Survey Area A GPR grid collection parameters.

Grid	Size (m)	Transects	Spacing (m)	Traversal	Direction
1	30 × 20	72	0.5	Unidirectional	South (North for reversal lines)
2	30 × 6	61	0.5	Unidirectional	East
3	30 × 18	95	0.5	Unidirectional	South (North for reversal lines)
4	16 × 9	33	0.5	Unidirectional	South
5	16 × 7	33	0.5	Unidirectional	North
6	10 × 9	21	0.5	Unidirectional	South

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
Ground-penetrating Radar Survey Grid



Figure 3-1: GPR Survey Grid (ESRI 2023).

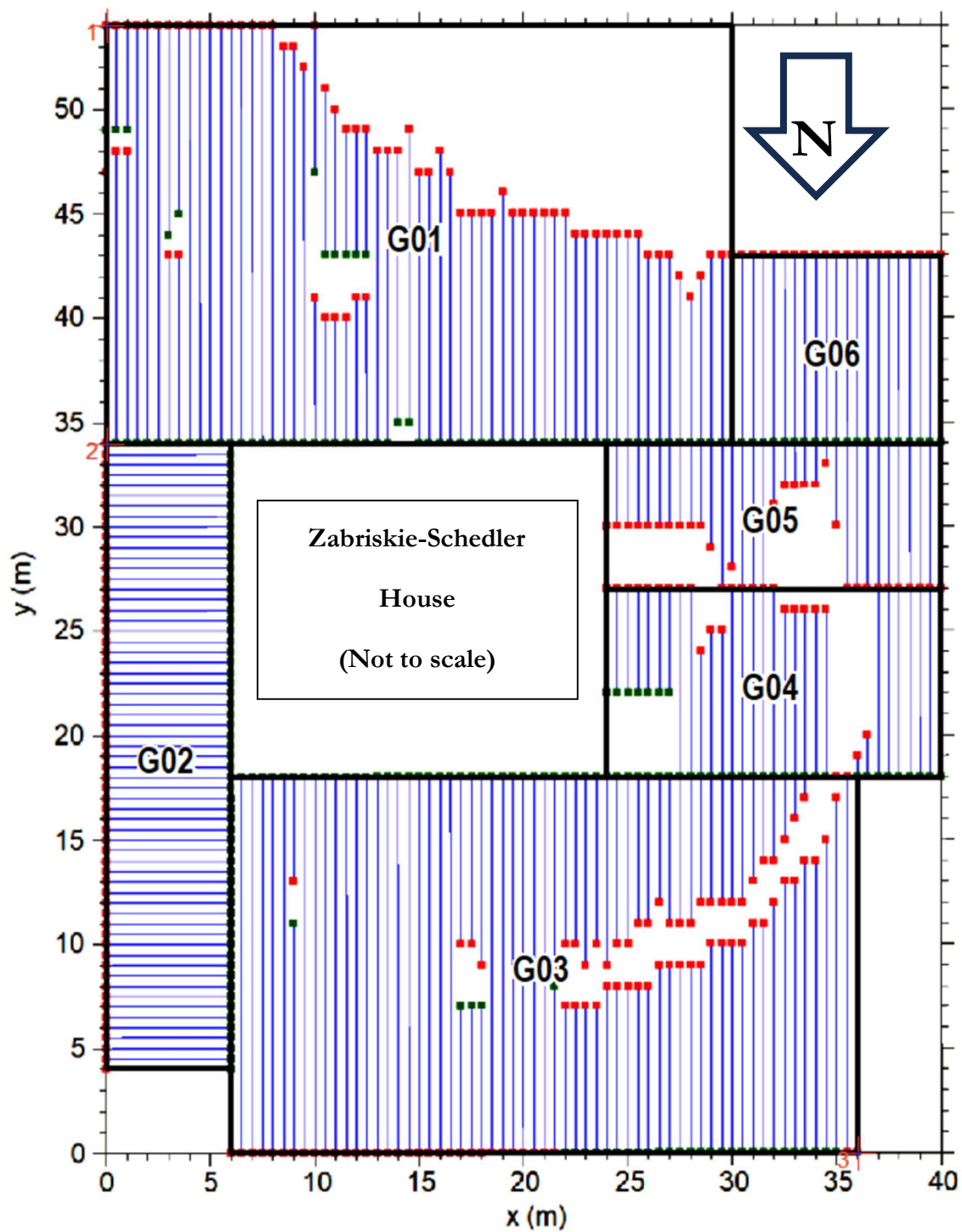


Figure 3-2: Combined Geophysical Survey area, covering 40×54 m (131×177 ft), with a total of 315 transects collected at 0.50-m spacing.



Plate 3-1: Overview of survey area to the north and east of the Zabriskie-Schedler House.
Photo view: West; Photographer: Olivier Vansassenbrouck; Date: October 10, 2023.



Plate 3-2: Overview of the Geophysical Survey Area to the west of the Zabriskie Schedler House.
Photo view: South; Photographer: Olivier Vansassenbrouck; Date: October 10, 2023.



Plate 3-3: Setting of Grid G1 from the northeast corner of G1 to the south of the Zabriskie-Schedler House. The wooded border of the backyard prevented GPR survey in those areas.
Photo view: West; Photographer: Olivier Vansassenbrouck; Date: October 10, 2023.



Plate 3-4: The western side of the Zabriskie-Schedler house, including Grids G4 and G5. Modern landscaping boulders and a large tree limited areas of survey.
Photo view: East; Photographer: Olivier Vansassenbrouck; Date: October 11, 2023.



Plate 3-5: Modern stone circle in grid G04.

Photo view: West; Photographer: Olivier Vansassenbrouck; Date: October 10, 2023.

3.1.2 Analytical Methodology

Following the fieldwork, the GPR data was copied from the GSSI SIR 4000 onto flash drive, processed using GPR-SLICE v7.MT imaging software, assembled with ArchaeoFusion, and mapped in ArcMap v10.8.2.

Using GPR-SLICE, the GPR data was appended into a 2D batch of files. File information was then created and edited based on collection parameters set in the field. The manufacturers' data was converted to GPR-SLICE format, and dc-drift and wobble noise were removed from the converted radargrams. Transects were reversed where applicable, and navigation was set to artificial markers since the survey wheel was employed. A time-zero adjustment was performed to remove the direct wave and some horizontal banding associated with the surface conditions. A vertical high pass/low pass filter was performed to remove horizontal banding and reduce graininess in the reflection profiles or radargrams. A background removal filter was then applied to further remove banding associated with surface conditions. A range gain was applied to the radargrams to compensate for the signal attenuation, amplifying the appearance of the hyperbolic anomalies, and reducing contrast near the surface and bottom on the profiles outside the area of focus. Hyperbola matching was performed to calculate velocity and identify the true dielectric constant, increasing the accuracy of depth. Data was reviewed between filters in order to account for the analysis of anomalies which may appear differently when post-processed using varied methods. After filtering, the data was sliced, gridded, and interpolated to create time slice grids which were downloaded as Surfer files.

Surfer files from the GPR grids were then imported into ArchaeoFusion which filters and integrates multiple geophysical datasets collected in the field. After the grids were imported, a standardize function was performed to smooth out edges between datasets and grid coordinates were added and the data georeferenced. The grids layers were then exported as GeoTiffs to be displayed and viewed in ArcMap.

The results of the GPR survey are best viewed in selected radargram profiles associated with transects and in an interpolated 3D grid of all transects which displays time slices by depth. While viewing the radargrams, it became clear that the strongest positive and negative reflections appear at depth range of 0.30–1.00 m (0.98–3.28 ft) below the ground surface with a maximum depth of 2.9 m (9.5 ft). A time-variable range gain was applied to amplify these areas of interest and minimize contrast near the surface and bottom of the radargram profiles. A variety of color palates and transformations were used to display the anomalies identified.

4.0 SURVEY RESULTS AND INTERPRETATIONS

The GPR survey was performed on October 10–11, 2023, by Geophysical Archaeologist Olivier Vansassenbrouck, MA, MSc, RPA, assisted by Archaeologist Rick Altenburg, MA. The weather was dry with temperatures ranging from 55–65°F. The survey goal was to locate and characterize any potential former structures, and other subsurface features around the Zabriskie-Schedler House as part of a larger Phase IB archaeological survey around the historic property. The data and interpretations presented herein are based on the local conditions at the time of survey.

The survey area was mostly cleared of leaves, branches, and other debris; however, impediments to survey remained, including large trees, boulders forming a semicircular fence line around the north and west sides of the house, and a ramp on the west side of the house. Survey transects were collected as close to surface features and impediments as possible, with some obstacles and areas being avoided. Topography within the survey area was flat.

The GPR survey identified eight anomalies through post-fieldwork data processing (Table 4-1; Figure 4-1). Four linear anomalies were identified as modern utility lines, corroborated by a One Call survey and/or visible features on the ground and building indicating their presence (e.g., manholes, an electric meter).

Geophysical anomalies were numbered consecutively and are abbreviated on maps and tables with an “A” prefix for identified anomalies followed by an individual identification number (e.g., A1, A2, etc.). Conclusively identified anomalies were given more detailed identifiers related to their origin. A combined table of these anomalies appears below.

Geophysical anomalies were identified at depth range of 0.30–1.00 m (0.98–3.28 ft) below surface with a maximum depth of 2.9 m (9.5 ft). Data used to make the interpretations were extracted from time slice maps which can be viewed in Appendix B. Data showed large amounts of “noise” throughout the survey area and at all depths.

Anomaly A1 shows a large planar anomaly approximately 4 m long and 2 m wide (13 ft long, 6.5 ft wide). The anomaly could not be characterized any further, but it may represent a change in the stratigraphy of the soil, such as a layer of more compacted soil. Anomaly A2 corresponds to a second modern stone circle, similar to the stone circle in Plate 3-5. As the stones were shallowly buried, they did not impede survey. The anomaly appears to be caused by a buried concrete slab in the center of the circle of stones. Anomaly A3 is located within the gravel driveway to the north of the house and is characteristic of a shaft feature, with a potential diameter of 1.2–2.0 m (3.9–6.7 ft). No surface features were visible on the ground at the time of survey; however, the area had recently undergone landscaping and it is possible this has obscured the origin of the anomaly. Anomaly A4 is identified as the infilled location of a possible former septic tank, with the recently installed sewer line running just 1.2 m (3.9 ft) south of its location. This planar anomaly is approximately 2.4 m long and 1.7 m wide (7.9 ft long, 5.6 ft wide), at a depth of approximately 0.4–0.7 m (1.3–2.3 ft).

Due to surface conditions (such as tree roots) and environmental variables, a certain number of anomalies may exist that could not be defined. The survey area to the northeast and east of the house

was affected by a high water table, causing interference in the data beyond a depth of 1 m (3.3 ft; see Figure 4-4), and modern fill had recently been deposited on site to level the ground. It is possible that identified anomalies could also represent false positives, which means that they appear to be consistent with known signatures but are not archaeologically significant. Determining their precise nature will require ground-truthing.

Table 4-1: Identified GPR anomalies and their interpretation.

Anomaly	Grid Number	Depth Below Ground Surface	Interpretation
A1	1	0.2–0.6 m (0.9–1.9 ft)	Unknown
A2	6	0.3–0.6 m (0.9–1.9 ft)	Landscape Feature / Concrete Slab
A3	3	0.3–1.0 m (0.9–3.2 ft)	Possible Shaft Feature
A4	3	0.5–0.8 m (1.6–2.6 ft)	Removed Sewer Tank
GAS	2	0.5–0.7 m (1.6–2.3 ft)	Utility line / Pipe
WATER	3	0.6–1.0 m (1.9–3.2 ft)	Utility line / Pipe
SEWER	3	0.5–0.7 m (1.6–2.3 ft)	Utility line / Pipe
SEWER / ELECTRIC	2	0.4–1.0 m (1.3–3.2 ft)	Utility line / Pipe

Shortly following the GPR survey, Phase IB archaeological testing was performed around the Zabriskie-Schedler property, covering a much larger area than the GPR survey (Richard Grubb & Associates, Inc. 2023). Several shovel test pits (STPs) were excavated within the Geophysical Survey Area. The results of these STPs were reviewed in order to inform the interpretation of the geophysical data.

The STP results in general showed heavy concentrations of pebbles, cobbles, and rocks across the Phase IB survey and Geophysical Survey areas. This may explain some of the noise found in the geophysical data around the house, affecting the GPR data throughout the full depth range.

Two judgemental STPs (J1 and J2) appear to correspond to the location of GPR anomalies A1 and A2, respectively. While STP J1 did not provide more information as to the origin of GPR anomaly A1, historic material was recovered at a depth of approximately 0.12–0.33 m (0.4–1.1 ft) within a soil layer described as a buried plowzone (A_{pb}). STP J2 corresponds to GPR anomaly A2 and encountered buried asphalt/concrete. This appears consistent with the similar modern stone circle to the west of the house (Plate 3-5; Richard Grubb & Associates, Inc. 2023).

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Data Interpretation



Figure 4-1: Plan view time slice map showing all GPR survey anomalies found at full radar depth range (ESRI 2023).

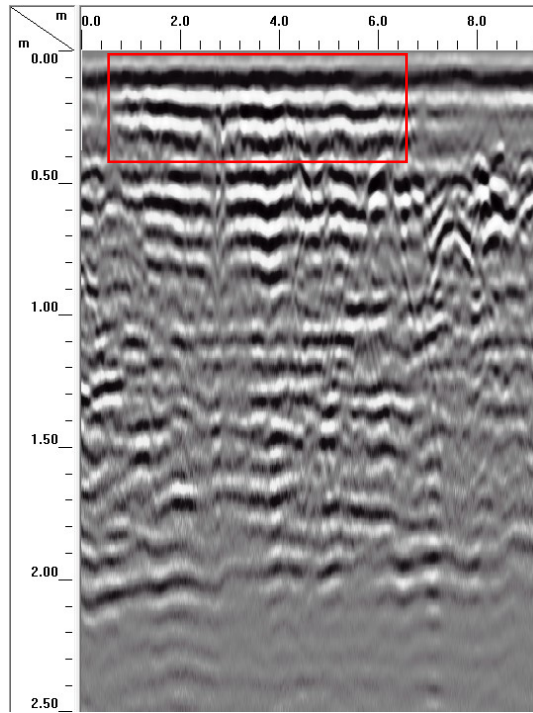


Figure 4-2: Radargram G6_003 (L297) shows planar anomaly A1 (red box) in Grid 1.

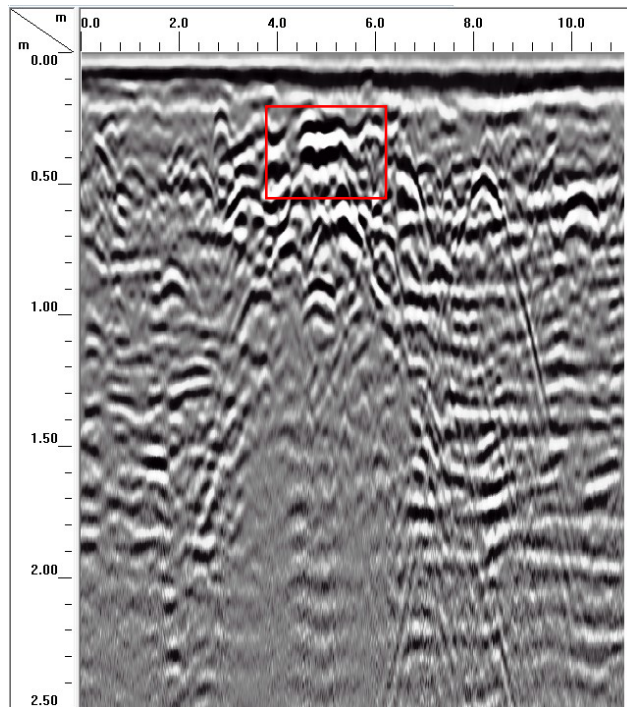


Figure 4-3: Radargram G1_053 (L053) showing Anomaly A2 (red box) in Grid 1.

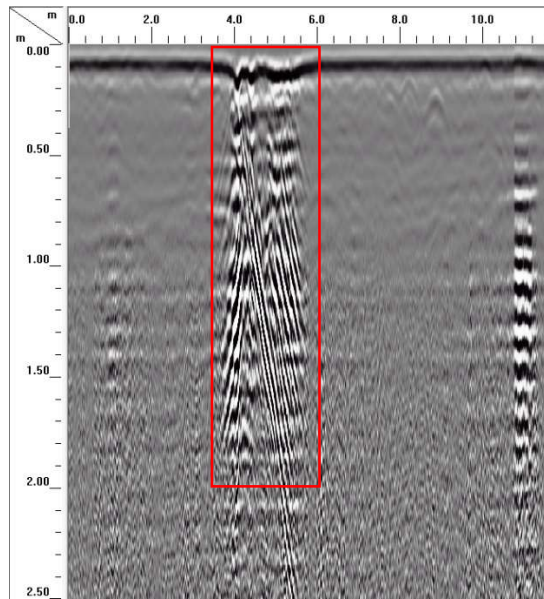


Figure 4-4: Radargram G3_085 (L218) showing the potential shaft feature (A3) in the northwest corner of Grid 3.

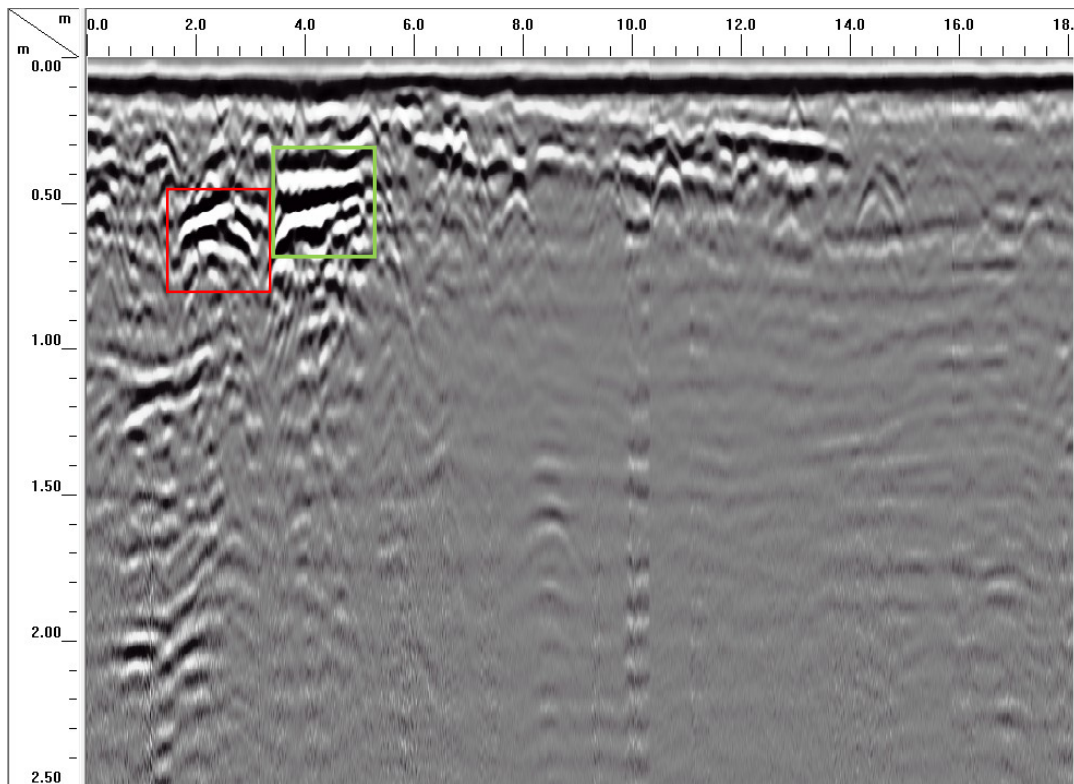


Figure 4-5: Radargram G3_021 (L154) showing the sewer line (red box) and possible infilled location of a removed septic tank (anomaly A4; green box) in Grid 3.

5.0 CONCLUSIONS AND RECOMMENDATIONS

Richard Grubb & Associates, Inc. (RGA) conducted an archaeological geophysical survey using ground-penetrating radar (GPR) around the Zabriskie-Schedler House at 460 West Saddle River Road, Village of Ridgewood, Bergen County, New Jersey. The Zabriskie-Schedler House is listed in the New Jersey Register and National Register of Historic Places (COE: 5/2/2014; SR: 8/13/2019; NR: 11/21/2019).

The GPR survey was performed on an approximately 0.5-acre survey area around the historic house and identified potential archaeological resources and utility features through post-fieldwork data processing. The GPR survey identified four linear anomalies corresponding to the location of modern utilities to the north and east of the house. Anomaly A1 could not be positively identified; however, subsequent STP testing of the anomaly recovered historic cultural material from the location of this anomaly. This could indicate the presence of a sheet midden or other concentration of archaeological artifacts. Anomaly A2 corresponds to a stone circle with a concrete/asphalt slab in the center and is most likely a relatively modern landscape feature. Anomaly A3 is characteristic of a shaft feature. Anomaly A4 is most likely related to the sewer utility and could be the location of a removed septic tank.

Based on these results, combined with the results of the Phase IB archaeological survey testing, RGA recommends targeted ground-truthing of anomalies A1 and A3 in order to determine if these anomalies represent in situ archaeological features. Anomalies A2 and A4 are most likely of modern origin and are not recommended for further testing.

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Appendix A: Qualifications of the Geophysical Specialist and Principal Investigator



YEARS OF EXPERIENCE

With this firm: <1
With other firms: 11
In other heritage fields: 3

EDUCATION

MA 2014
Uni. of Massachusetts Boston
Historical Archaeology

Certificate 2011
Bucks Co. Community College
Historic Preservation

BA 2008
Rutgers University
Anthropology/English

PROFESSIONAL TRAINING

Advanced Interpretation for
GPR, GSSI

Master Class in GPR Data Post-
Processing, ScreeningEagle

Mapping Sites with Magnetic
Susceptibility, Council for
Northeastern Historical
Archaeology (CNEHA)

PROFESSIONAL SOCIETIES

Register of Professional
Archaeologists (RPA)

CNEHA (Vice Chair, USA)

Society for Historical
Archaeology (SHA)

Pennsylvania Archaeological
Council (PAC)

Archaeological Society of New
Jersey (ASNJ)

Archaeological District. Survey identified potential archaeological features which may indicate that the site continues into previously unexcavated areas.

Elton Point Development GPR Survey, Manalapan, NJ (Sponsor: Private client)

Principal Investigator for GPR survey of an approximately 0.79-acre buffer of the cemetery easement for the 19th-century Old Thompson Family Burial Ground #8. Marked graves were present over 115 feet away from survey area. No signs of burials were identified.

MEAGAN M. RATINI **DIRECTOR OF GEOPHYSICS**

Meagan Ratini, RPA, has over twelve years' experience in archaeological investigations across the Eastern US, including excavations, geophysical surveys, collections projects, and laboratory analyses. She specializes in combining traditional archaeological methodology, archaeological geophysics, and geographic information systems (GIS) to create fuller understandings of the past. She has served as Principal Investigator for geophysical surveys, Phase I and II archaeological investigations, and monitoring on sites ranging in date from the Archaic Period to the 1950s and has conducted analysis for Phase III data recovery projects, both historic and precontact. Her geophysical projects have delineated numerous historic-period cemeteries and have identified potentially National Register-eligible archaeological features for federal and state agencies, military bases, museums, and private clients. She specializes in archaeological ground-penetrating radar (GPR). Ms. Ratini has extensive experience across the Mid-Atlantic region and meets the qualifications set forth in the Secretary of Interior's Standards for Archaeologists and Historians [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

White Hill Mansion Multi-Method Geophysical Survey, Fieldsboro, NJ (Sponsor: Friends of White Hill)

Principal Investigator for combined magnetometer and GPR survey around the 18th-century White Hill Mansion. Survey planned in order to identify potential archaeological features related to pre-contact and historic period occupations.

Geophysical Survey of Historic Moorefields: Manor House, Yard Areas, and Cameron-Moore-Waddell Cemetery, Hillsborough, NC (Sponsor: Friends of Moorefields)

Principal Investigator for dual method geophysical survey of the yard areas around the 1785 home of US Supreme Court Justice Alfred Moore. Magnetometry was conducted over four acres of the property and identified 32 anomalies of possible archaeological origin. One acre targeted for further GPR survey, which identified an additional 14 potential archaeological anomalies. Pedestrian survey also identified a potential area of burials of enslaved individuals. Subsequent ground-truthing identified potential structural remains.

Alexander Rock House Ground-Penetrating Radar (GPR) Survey, Charlotte, NC (Sponsor: Charlotte Museum of History)

Supervised and co-authored report on survey of an area of the Hezekiah Alexander Homesite, the earliest house in Mecklenburg County. Survey was intended to identify potential burials based on earlier archaeological infrared photography investigations. No burials were identified within the survey area, but possible historical features and earlier archaeological excavations were identified.

Magnetometer and GPR Survey of River Road and Landing Lane, Piscataway, NJ (Sponsor: Middlesex County Cultural and Heritage Commission)

Assisted with analysis of magnetometry and GPR results for survey within the Raritan Landing



OLIVIER VANSASSENBOUCK GEOPHYSICAL SPECIALIST/ARCHAEOLOGIST

YEARS OF EXPERIENCE

With this firm: Mar. 2022-
Present
With other firms: 4

EDUCATION

MSc 2016
University of Bradford (U.K.)
Archaeological Prospection –
Shallow Geophysics

MA 2014
Vrije Universiteit Brussel
(Belgium)
Art History and Archaeology

PROFESSIONAL SOCIETIES

ISAP
International Society for
Archaeological Prospection

PROFESSIONAL REGISTRATION

Register of Professional
Archaeologists

Olivier Vansassenbrouck's experience includes conducting archaeological field investigations and geophysical surveys. Mr. Vansassenbrouck specializes in magnetometer, earth resistance and ground-penetrating radar surveys. His work has encompassed geophysical surveys of several large tracts. He has worked extensively in the United Kingdom, on a variety of sites ranging from the 6th to 19th century. He has also worked on early medieval archaeological sites in Belgium and France.

REPRESENTATIVE PROJECT EXPERIENCE

White Hill Mansion (28-Bu-738), 217 Fourth Street, Fieldsboro, Burlington County, New Jersey

Mr. Vansassenbrouck participated in a magnetometer and ground-penetrating radar survey of the mansion and associated yard areas, as well as a grass field running parallel to the driveway of the mansion. The survey aimed to identify former outbuildings and their functions, and to determine whether the presence of tunnels on the site could be identified. The survey in the grass field aimed to identify the potential location of a Hessian camp. The GPR survey identified several former structures, including a potential barn, and potential passageways or shafts. The magnetometer survey on the grass field identified the location of another potential barn building.

Historic Moorefields, 18th/19th Century Manor House, Moore Family Cemetery, and Associated Acreage, Town of Hillsborough, Orange County, North Carolina (Sponsor: Friends of Moorefields)

Mr. Vansassenbrouck performed data analysis of magnetometer data collected as part of a multi-method geophysical survey around the 18th/19th century Historic Moorefields manor house and associated yard areas, and the Cameron-Moore-Wadell Cemetery. The survey was undertaken to ascertain the location of and characterize outbuildings, marked and unmarked burials inside the cemetery walls, and other subsurface features. The survey identified potential archaeological resources and modern anomalies, including former structures.

Raritan Landing, Part of Block 11801, Lot 1.02, River Road and Landing Lane, Piscataway Township, Middlesex County, New Jersey (Sponsor: County of Middlesex, Office of Arts & History)

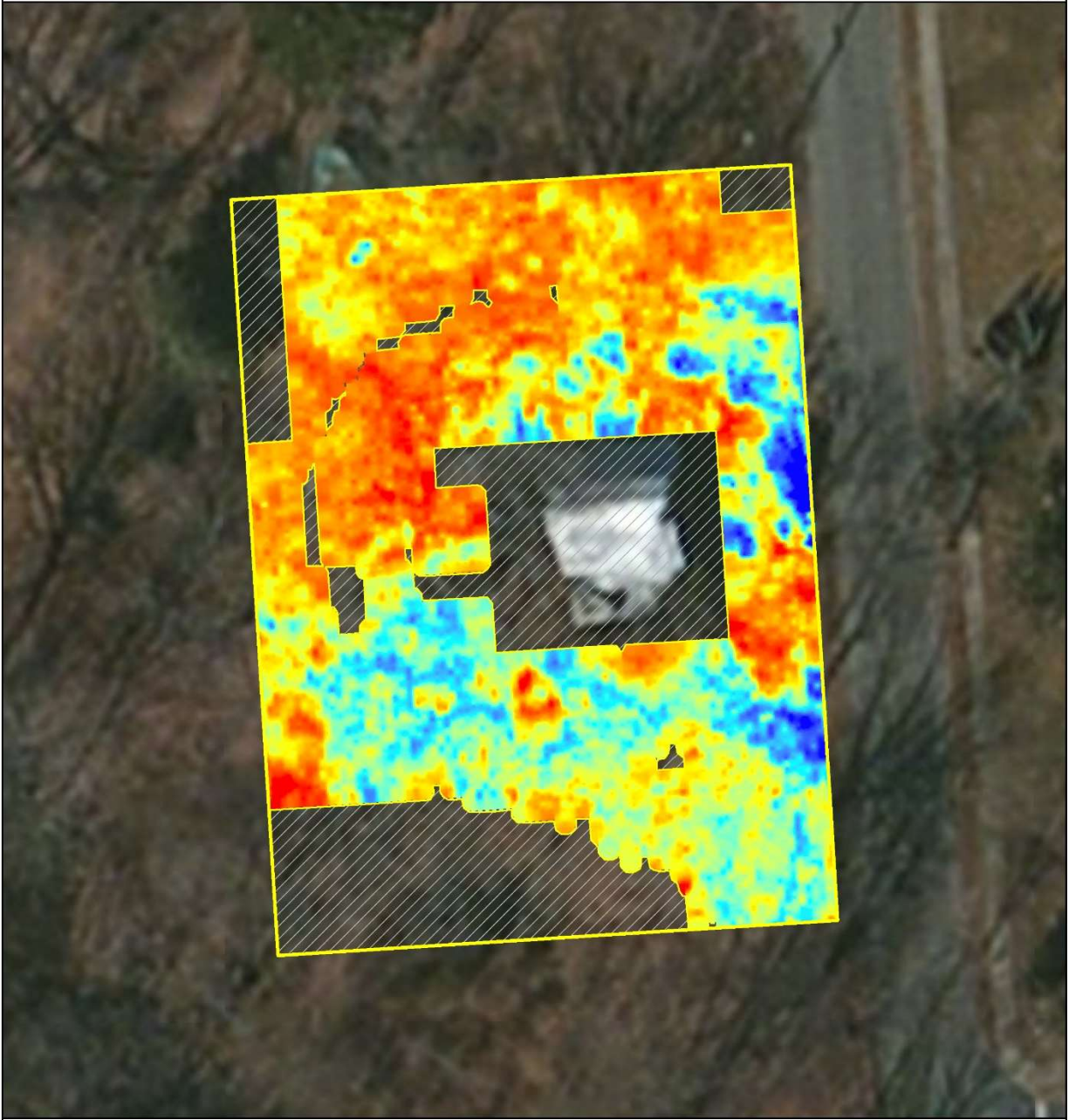
Mr. Vansassenbrouck conducted a geophysical survey (magnetometer and ground-penetrating radar) of a 0.72 acre area within the Raritan Landing Archaeological District to ascertain the presence of any potential archaeological features related to the 18th century village of Raritan Landing in the area adjacent to the location of extensive archaeological excavation work in the 1990's and 2000's. The survey results suggest the presence of archaeological features related to Raritan Landing continue outside these previously excavated areas, with many GPR anomalies showing at a consistent depth with the depth of previously excavated features.

First Reformed Church of New Brunswick Cemetery, City of New Brunswick, Middlesex County, New Jersey (Sponsor: County of Middlesex, Office of Arts & History)

Mr. Vansassenbrouck conducted a ground-penetrating radar survey on a small subsection (0.01 acres) of the 18th and 19th century cemetery in order to ascertain the presence of any potential burials in an area where no headstones are present. Several possible unmarked shallow graves were identified, potentially associated with the gravestones of the next row of graves or an additional row of unmarked graves, as well as a complex anomaly in the center of the unmarked area that showed some of the characteristics of a grave shaft with associated casket.

Appendix B: GPR Time Slices at 10 cm intervals

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

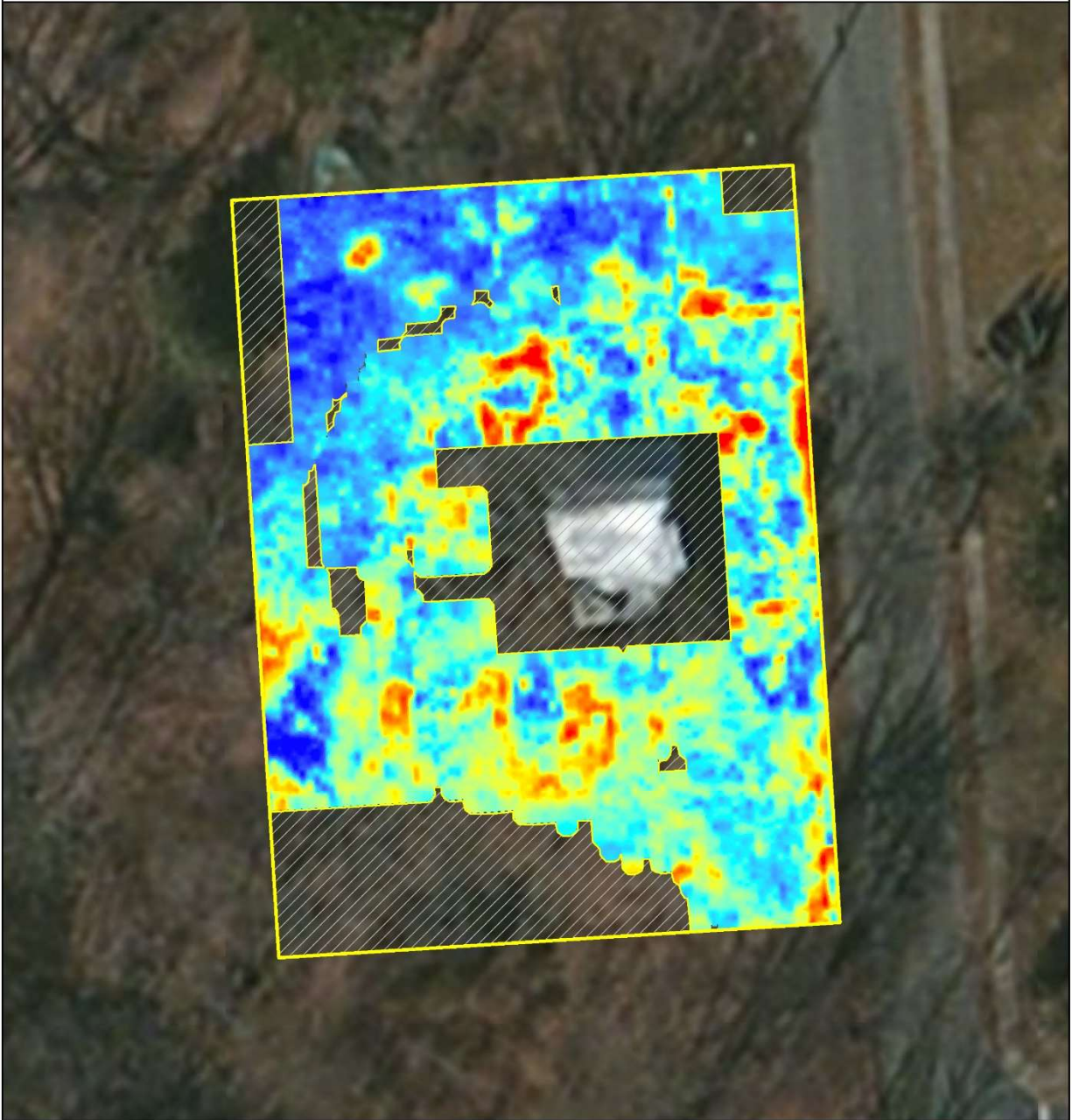


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.00 - 0.10 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

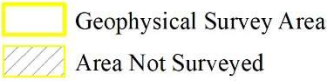
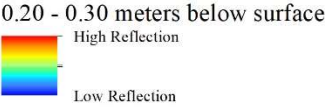
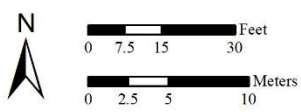
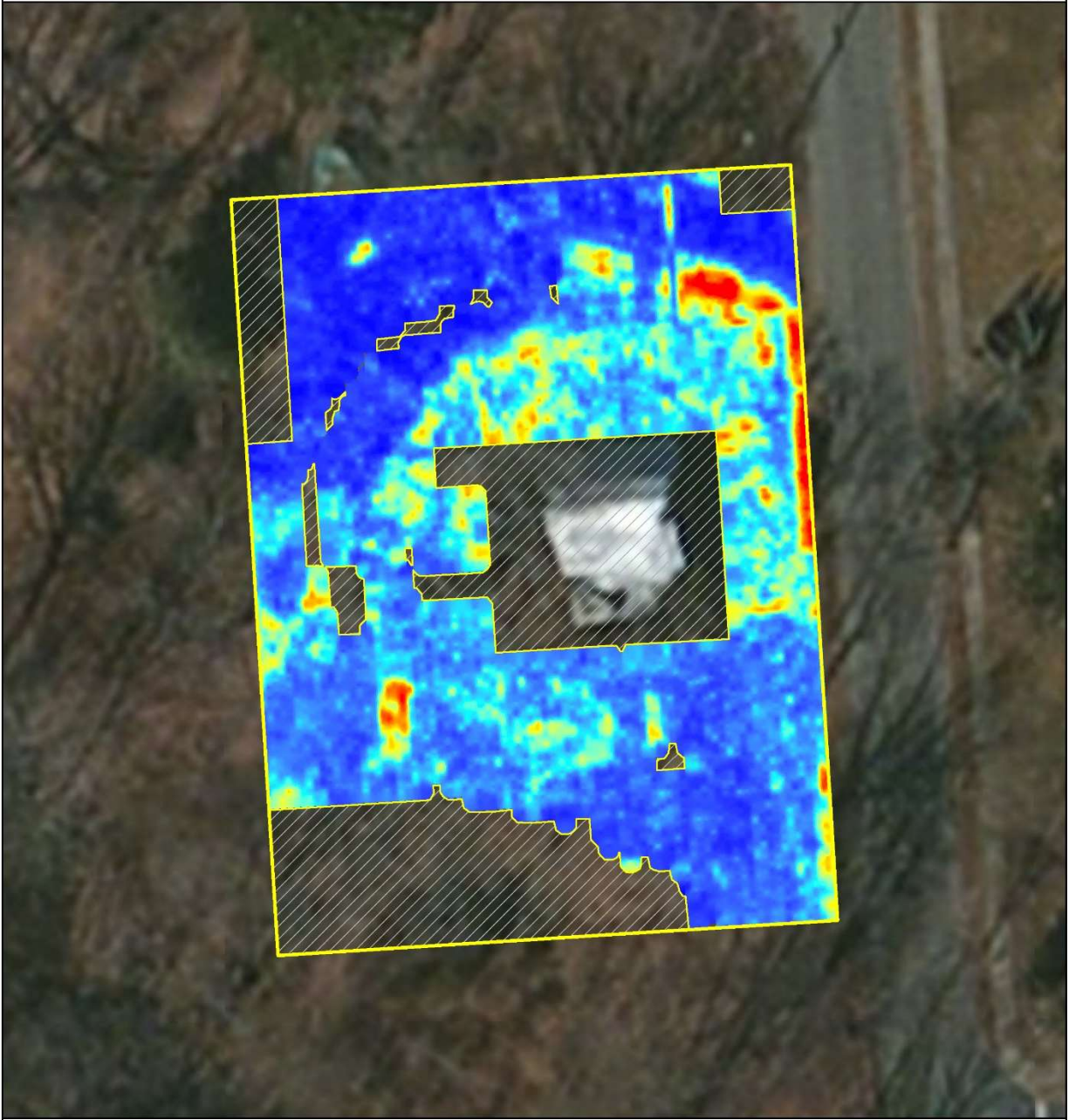


0 7.5 15 30 Feet
0 2.5 5 10 Meters

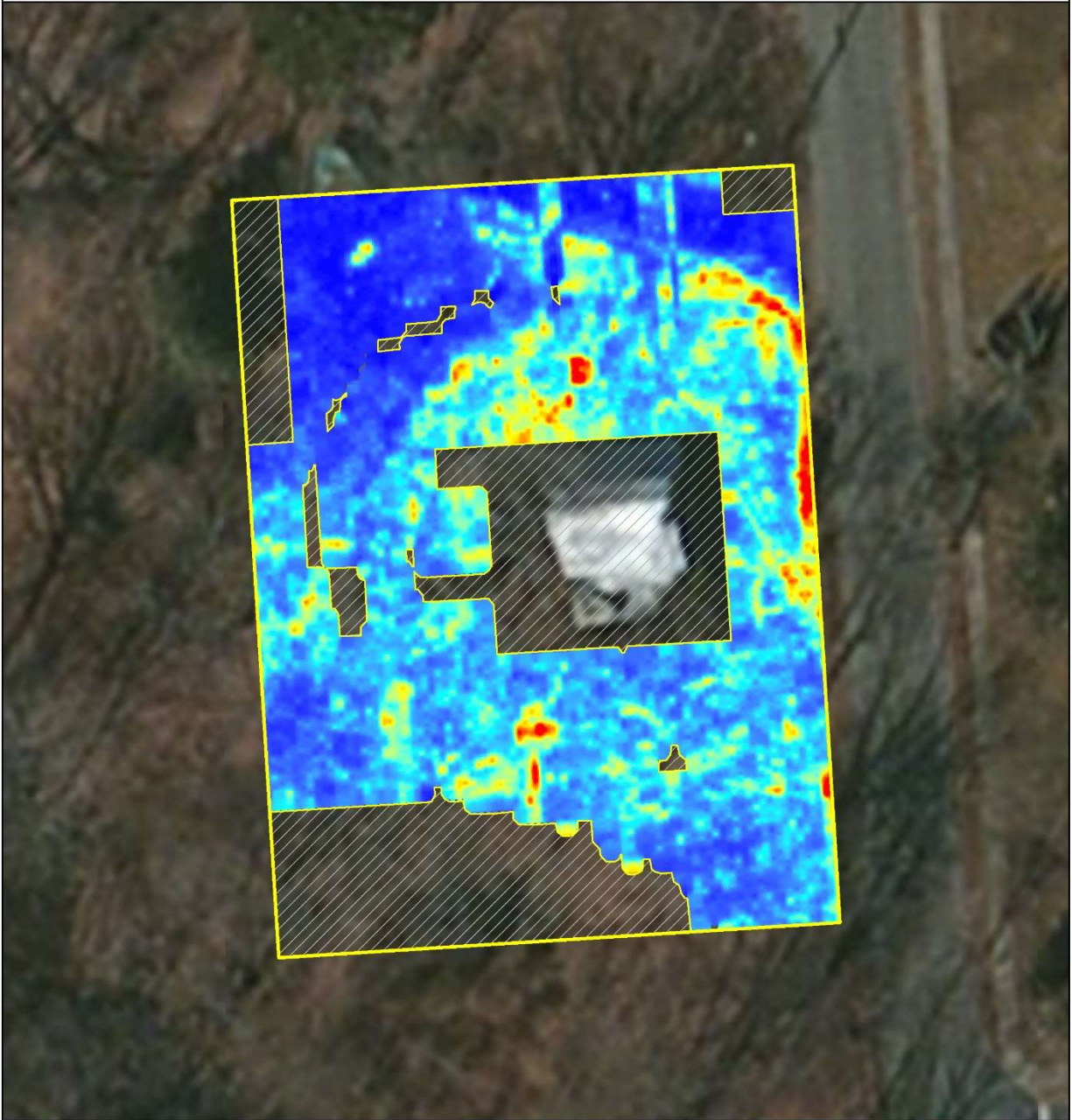
0.10 - 0.20 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice



Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

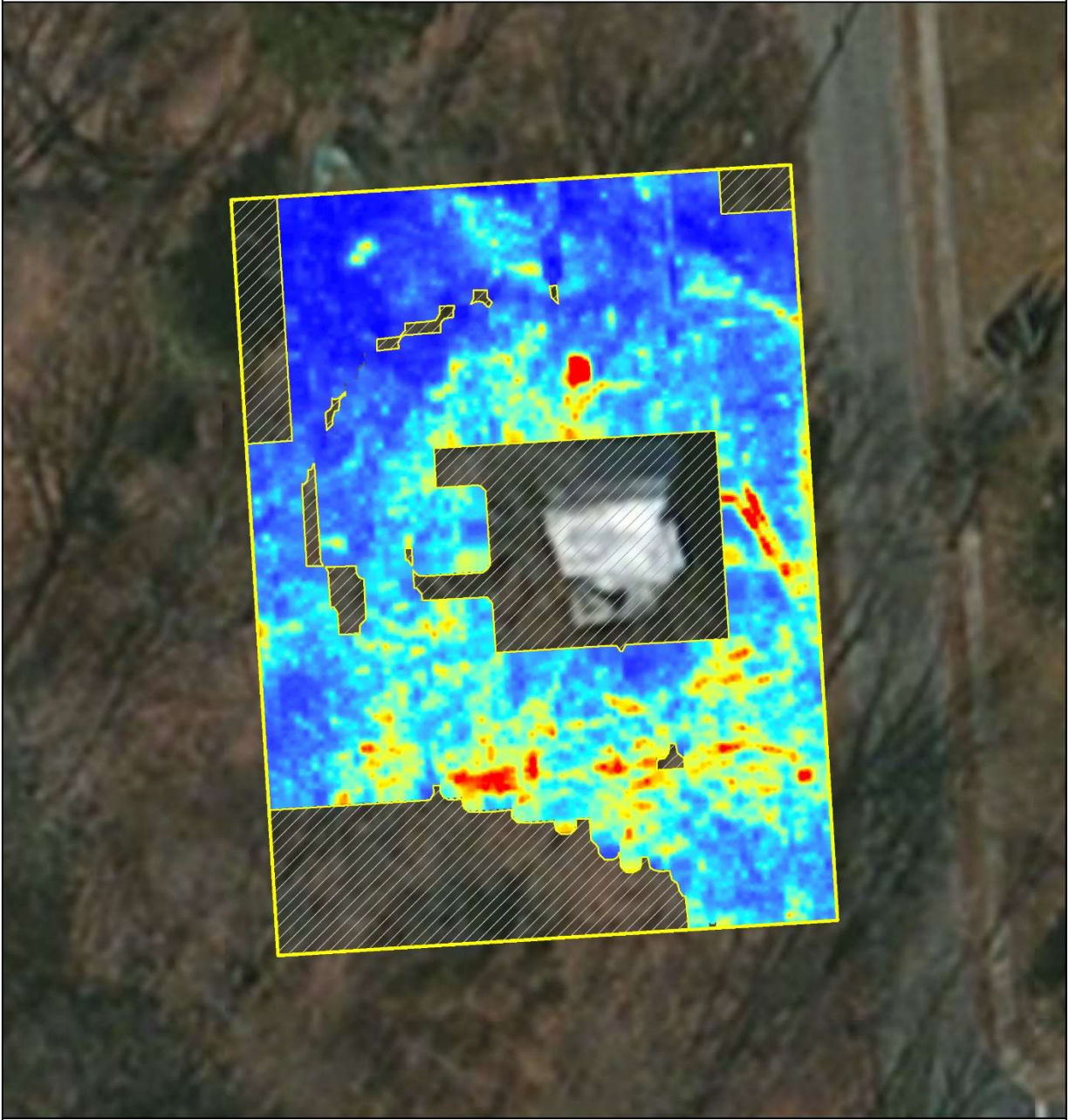


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.30 - 0.40 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

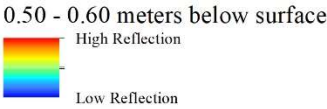
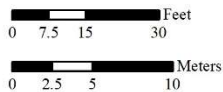
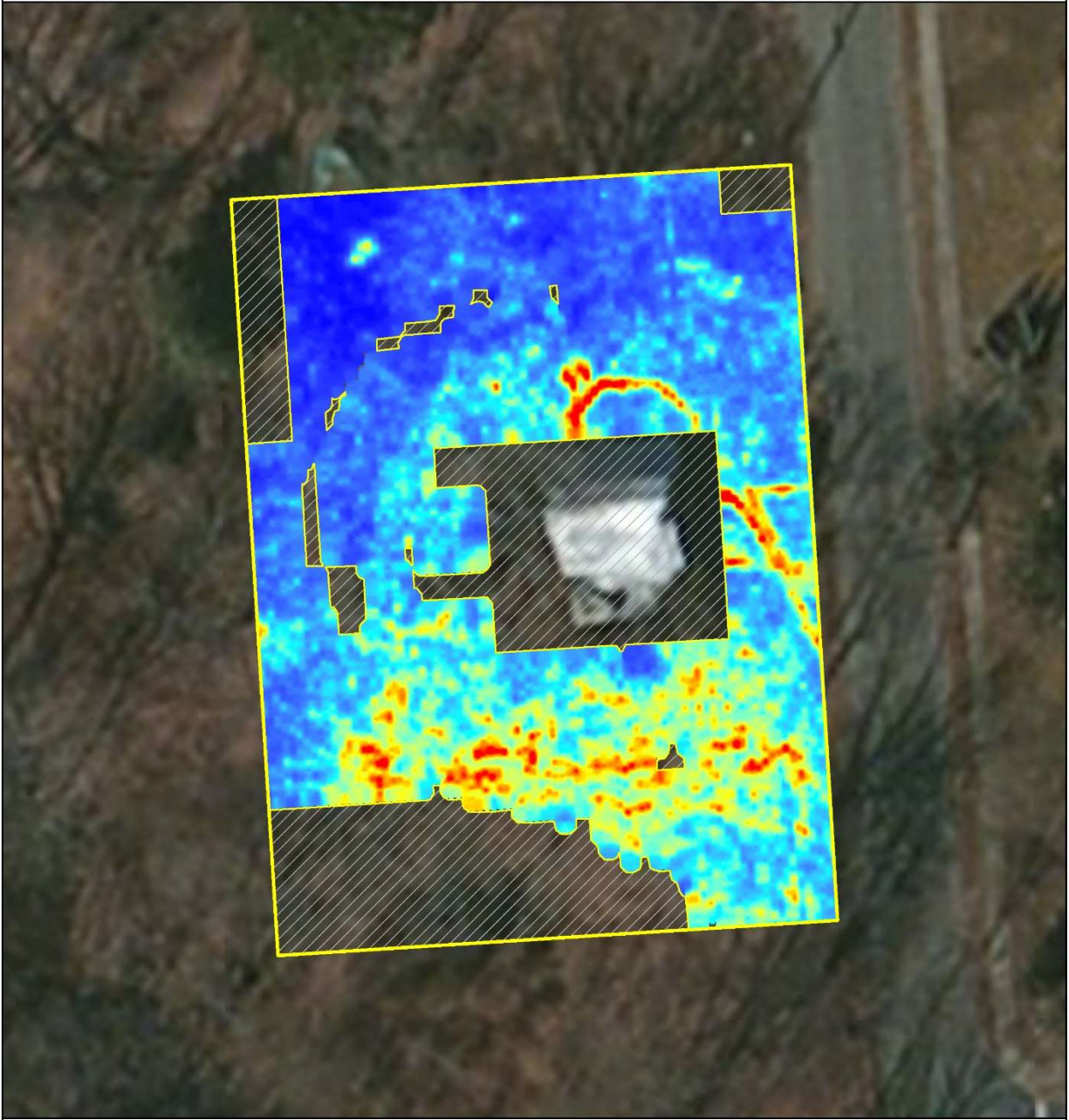




0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.40 - 0.50 meters below surface
High Reflection
Low Reflection

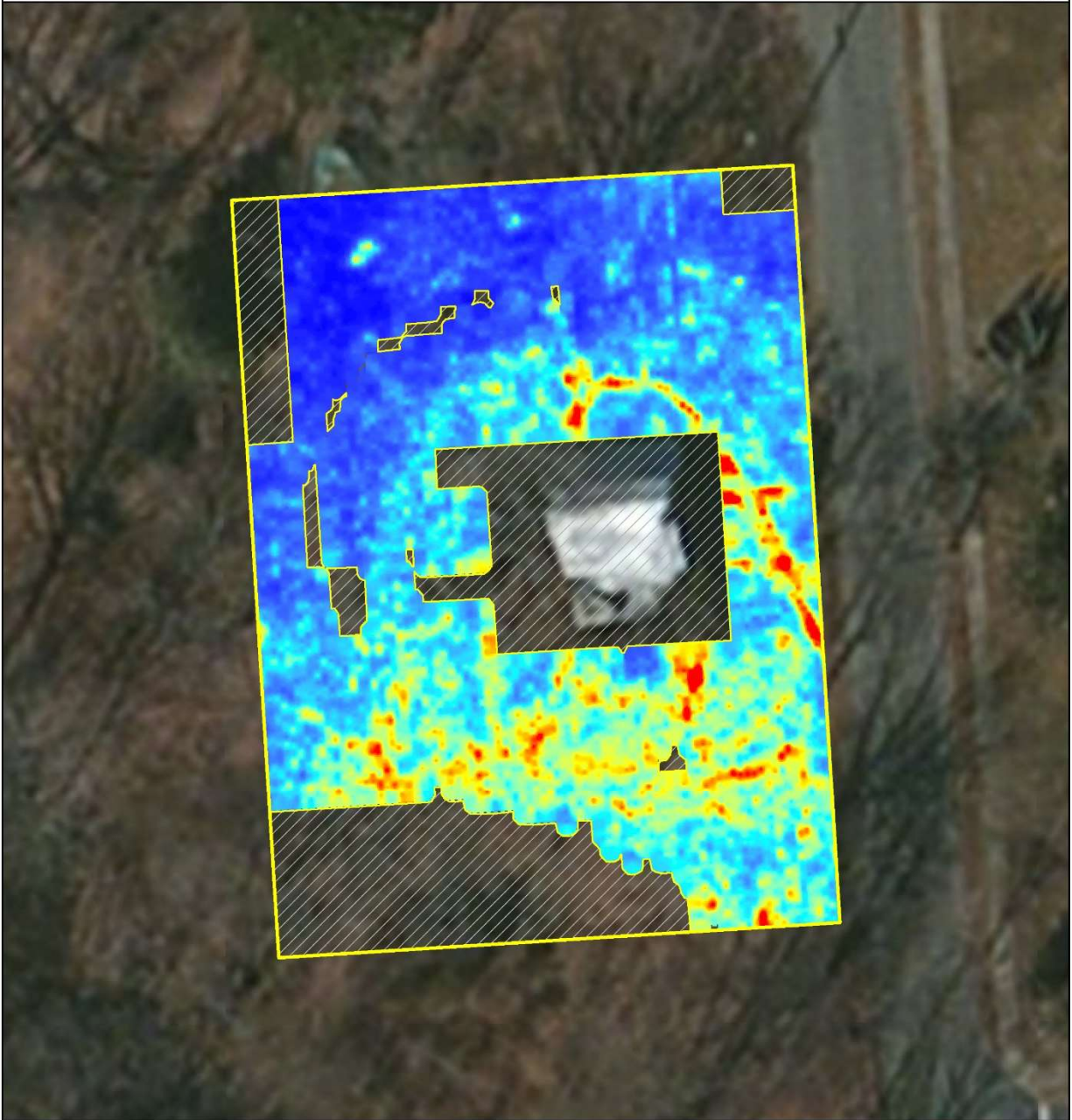
Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice



-  Geophysical Survey Area
-  Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

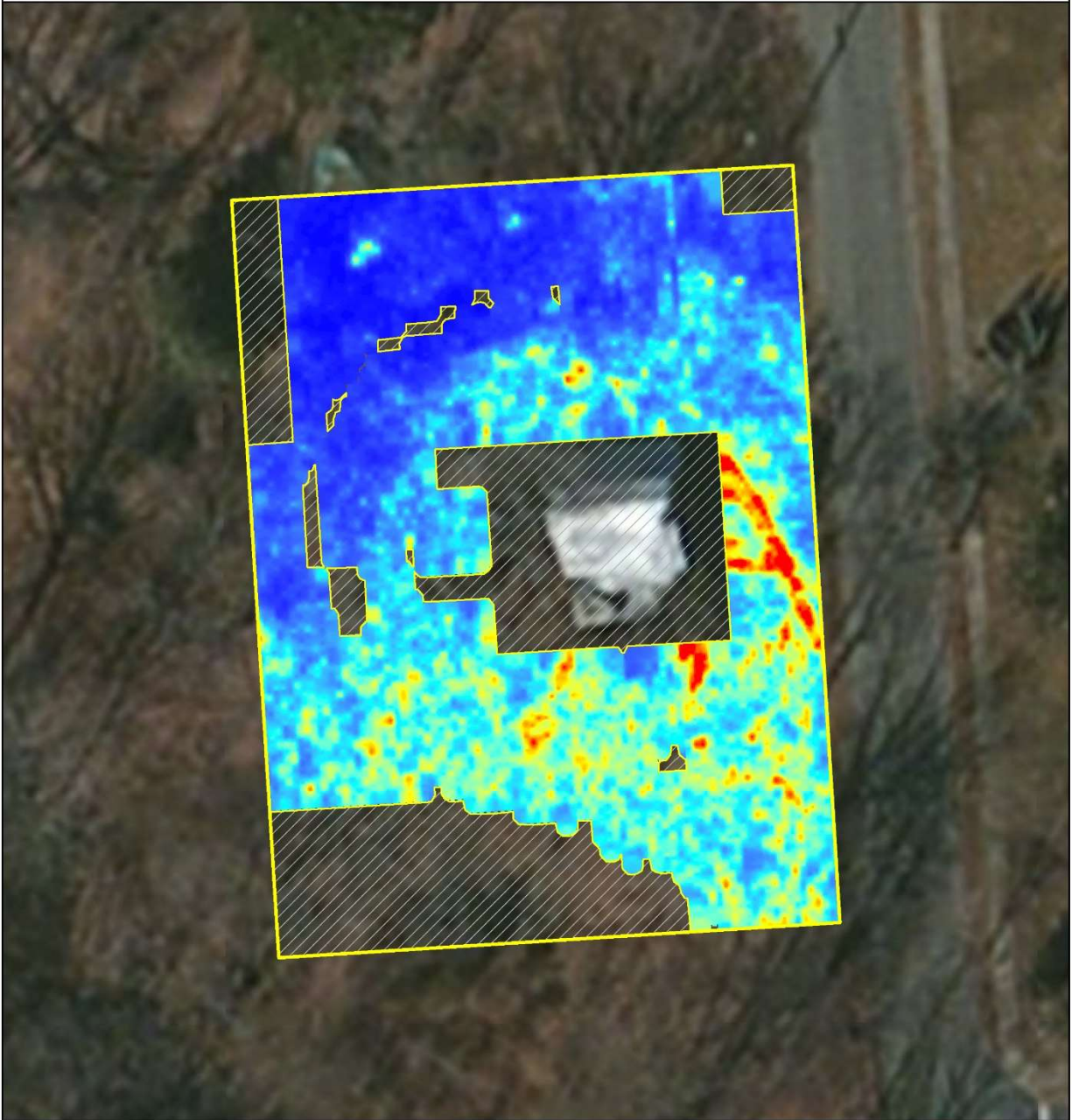


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.60 - 0.70 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

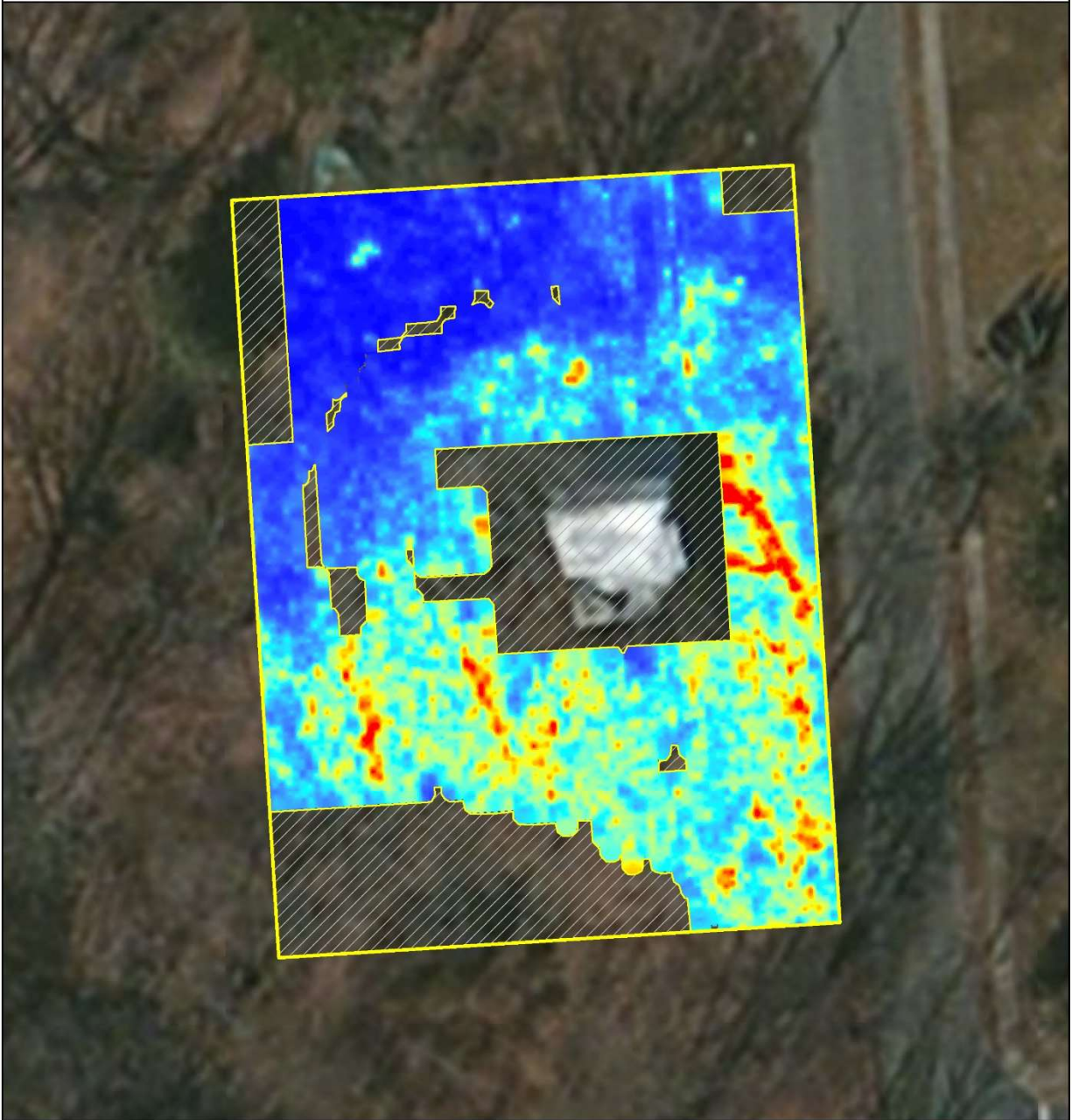


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.70 - 0.80 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

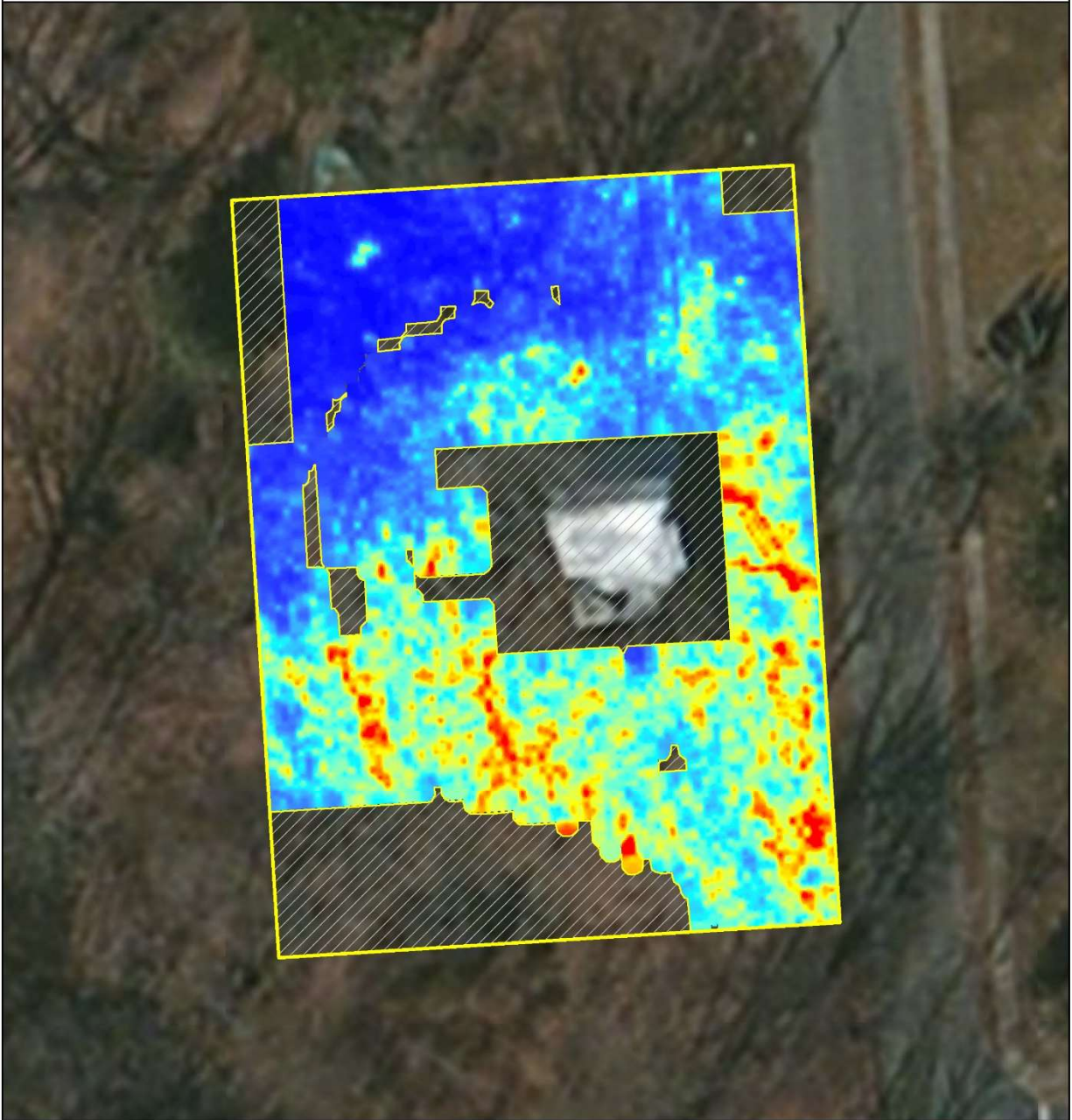


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.80 - 0.90 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

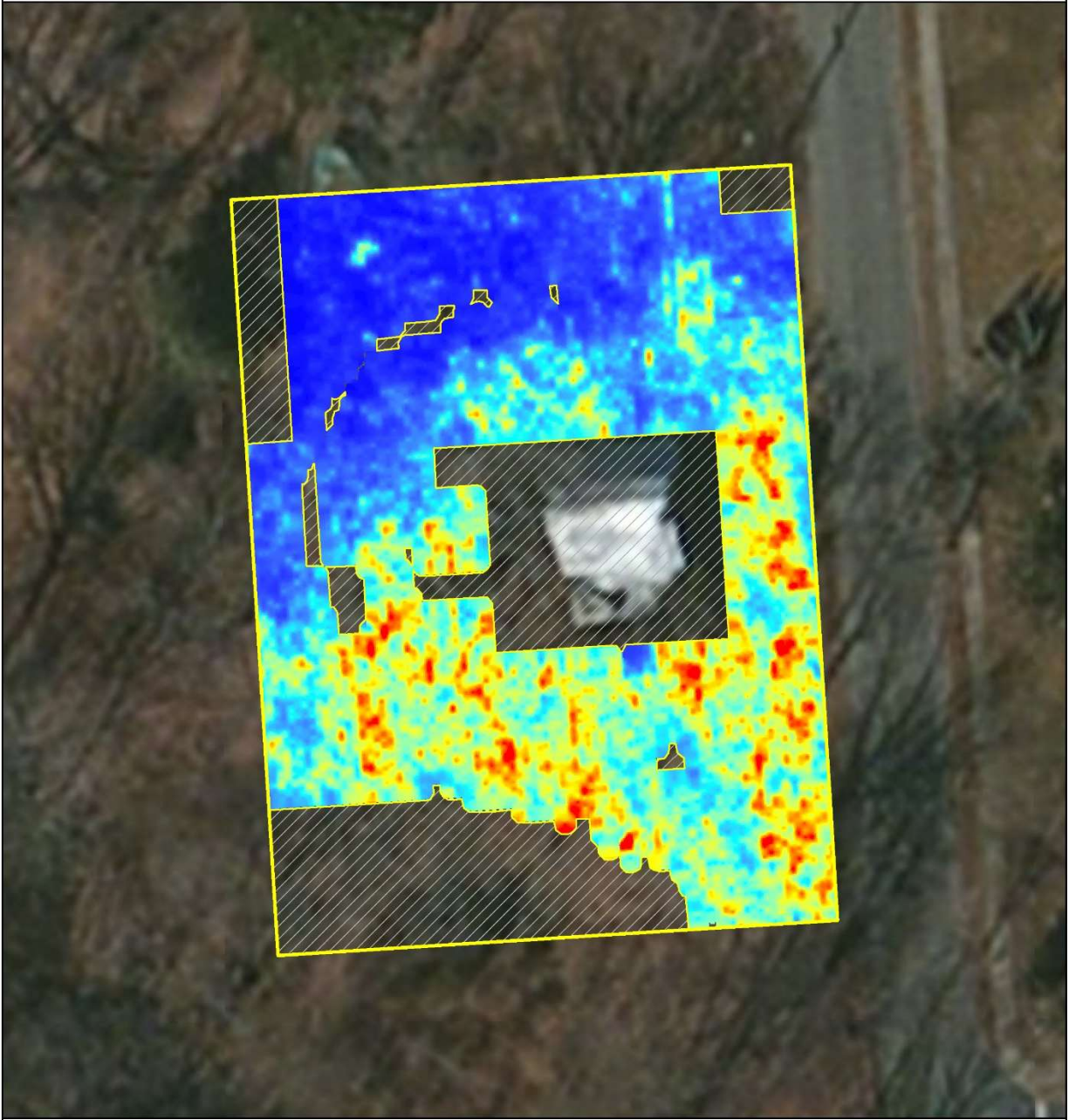


0 7.5 15 30 Feet
0 2.5 5 10 Meters

0.90 - 1.00 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

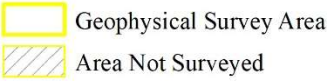
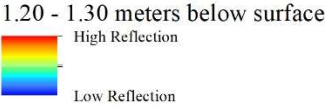
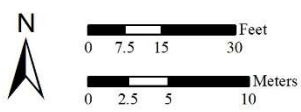
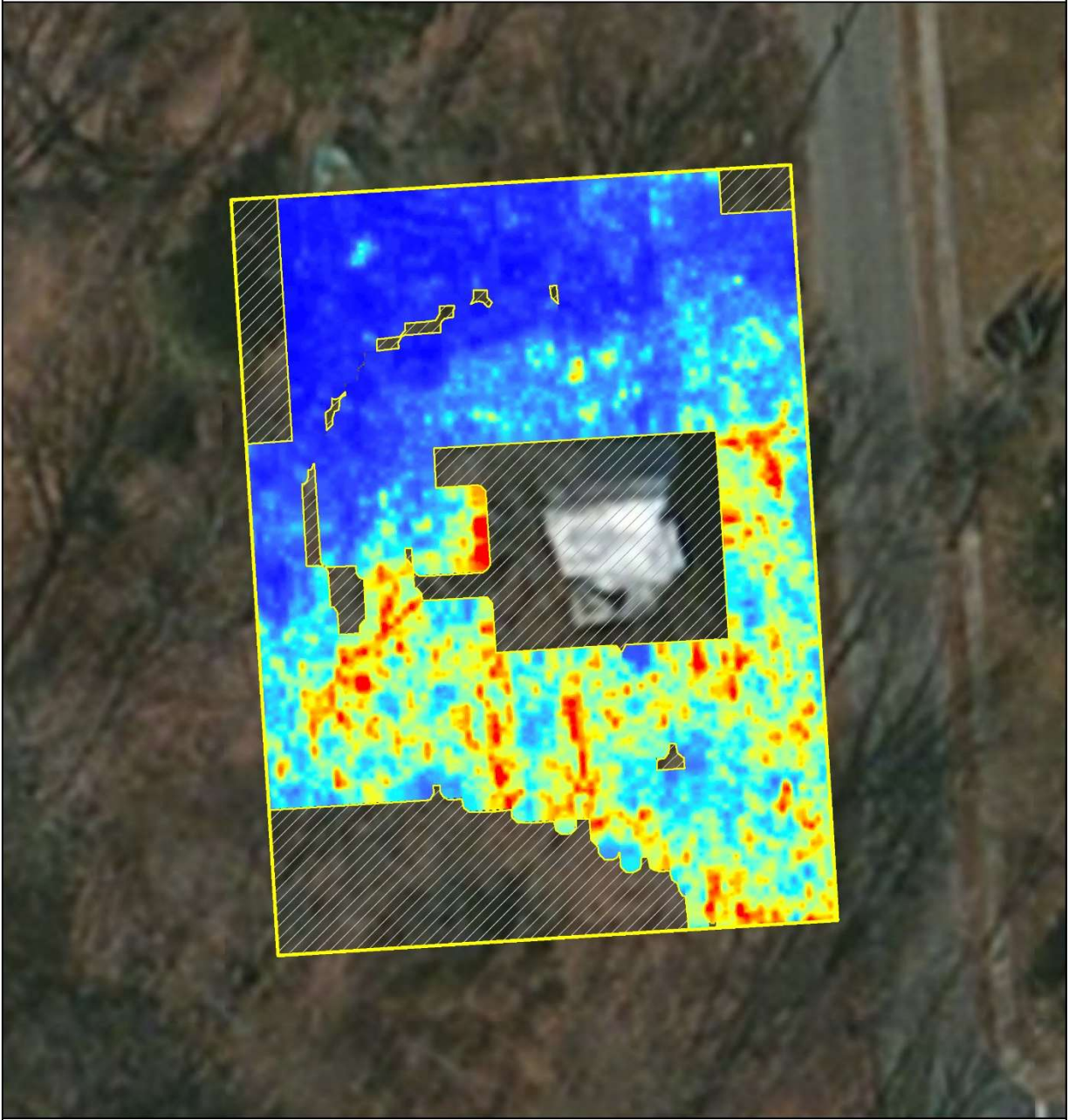


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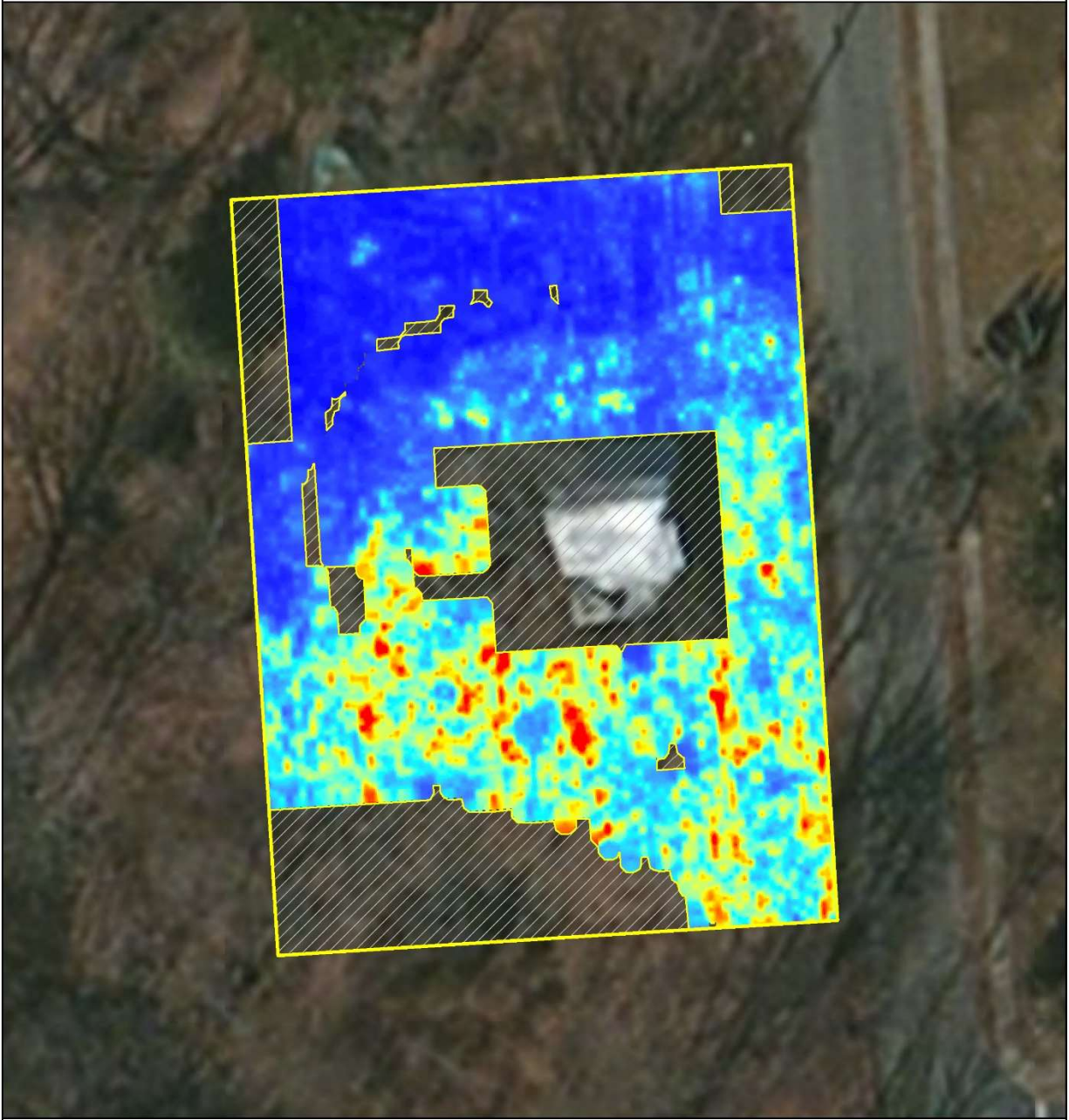
1.00 - 1.10 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice



Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

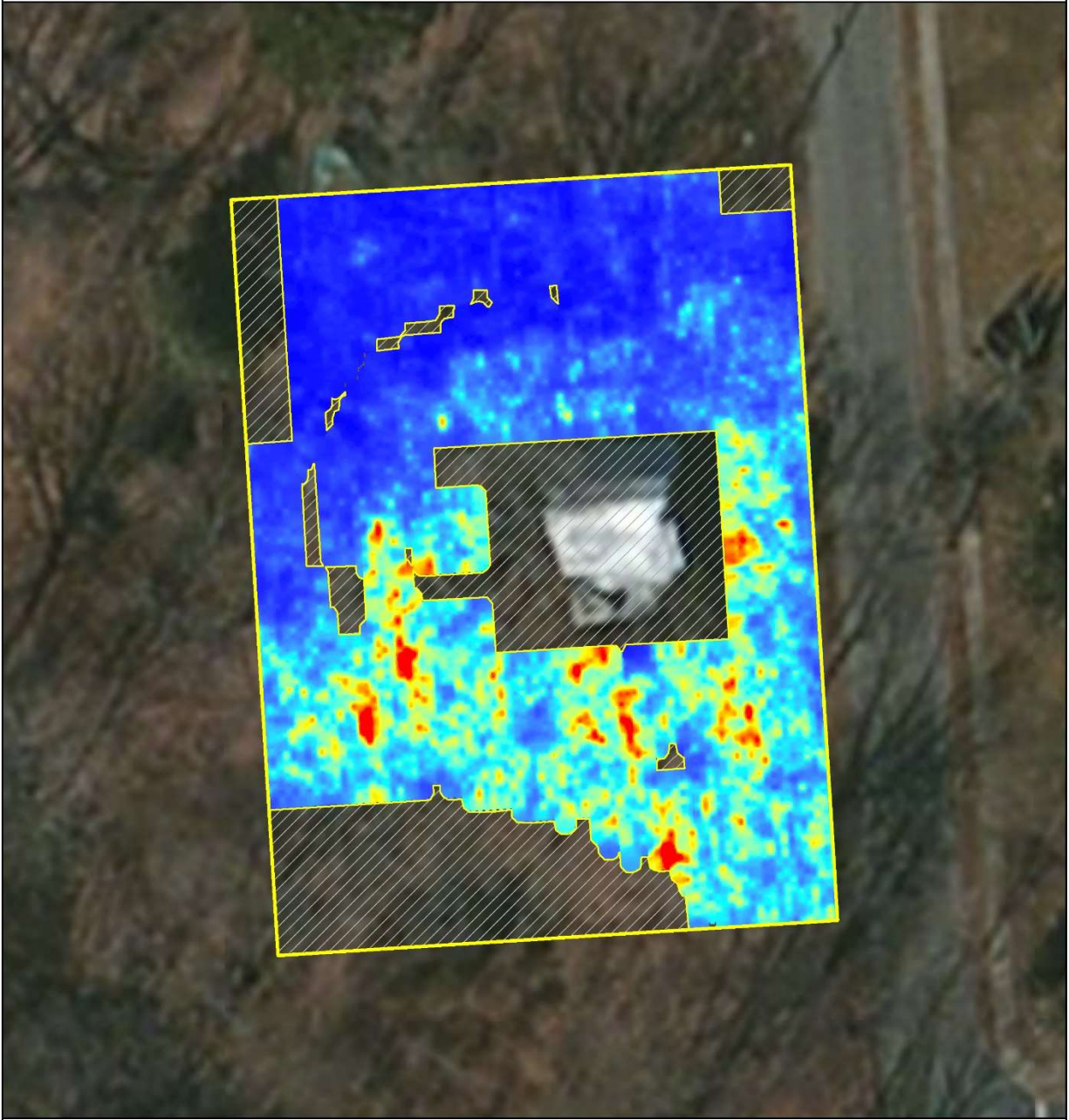


0 7.5 15 30 Feet
0 2.5 5 10 Meters

1.40 - 1.50 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

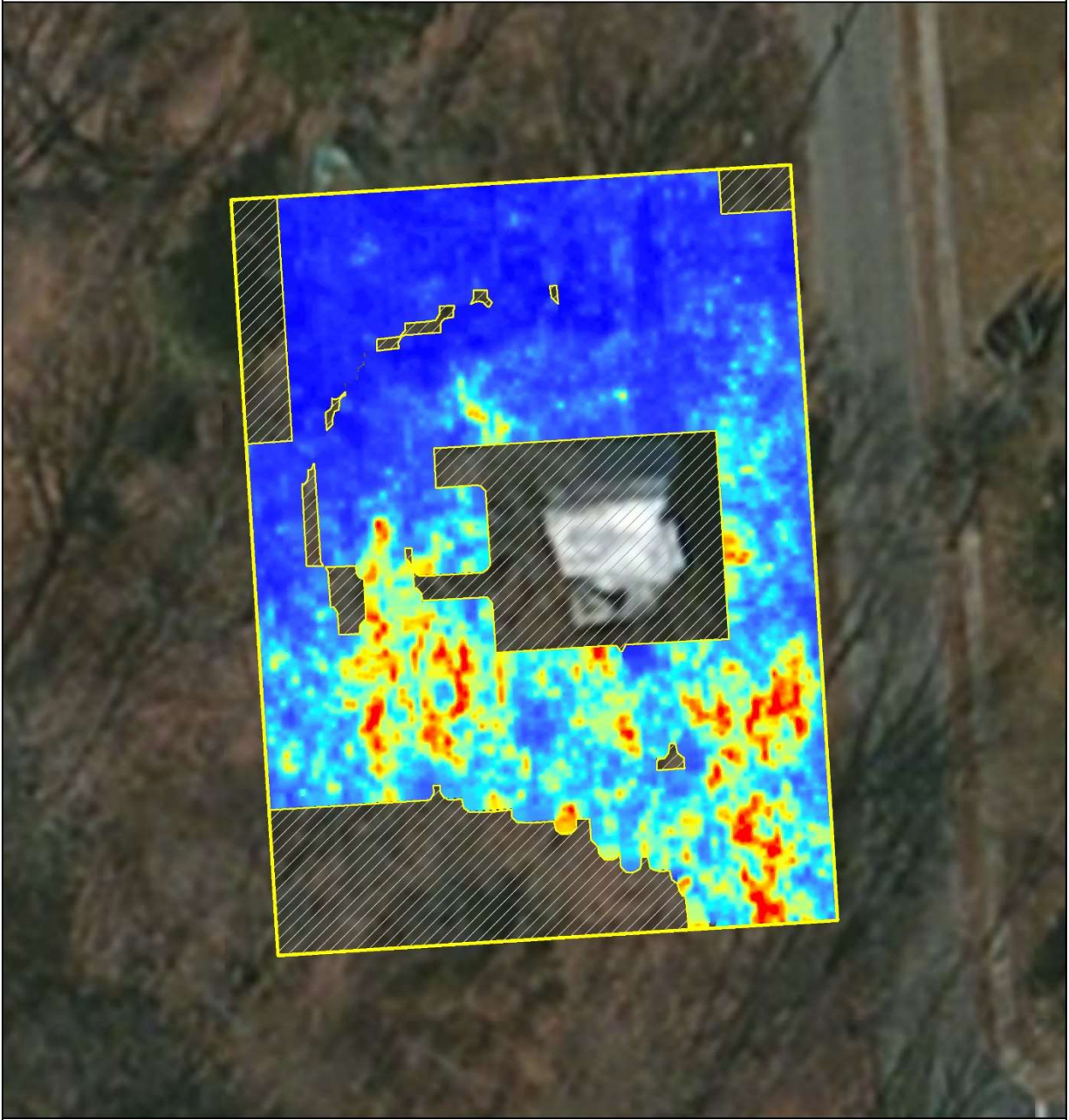


0 7.5 15 30 Feet
0 2.5 5 10 Meters

1.60 - 1.70 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

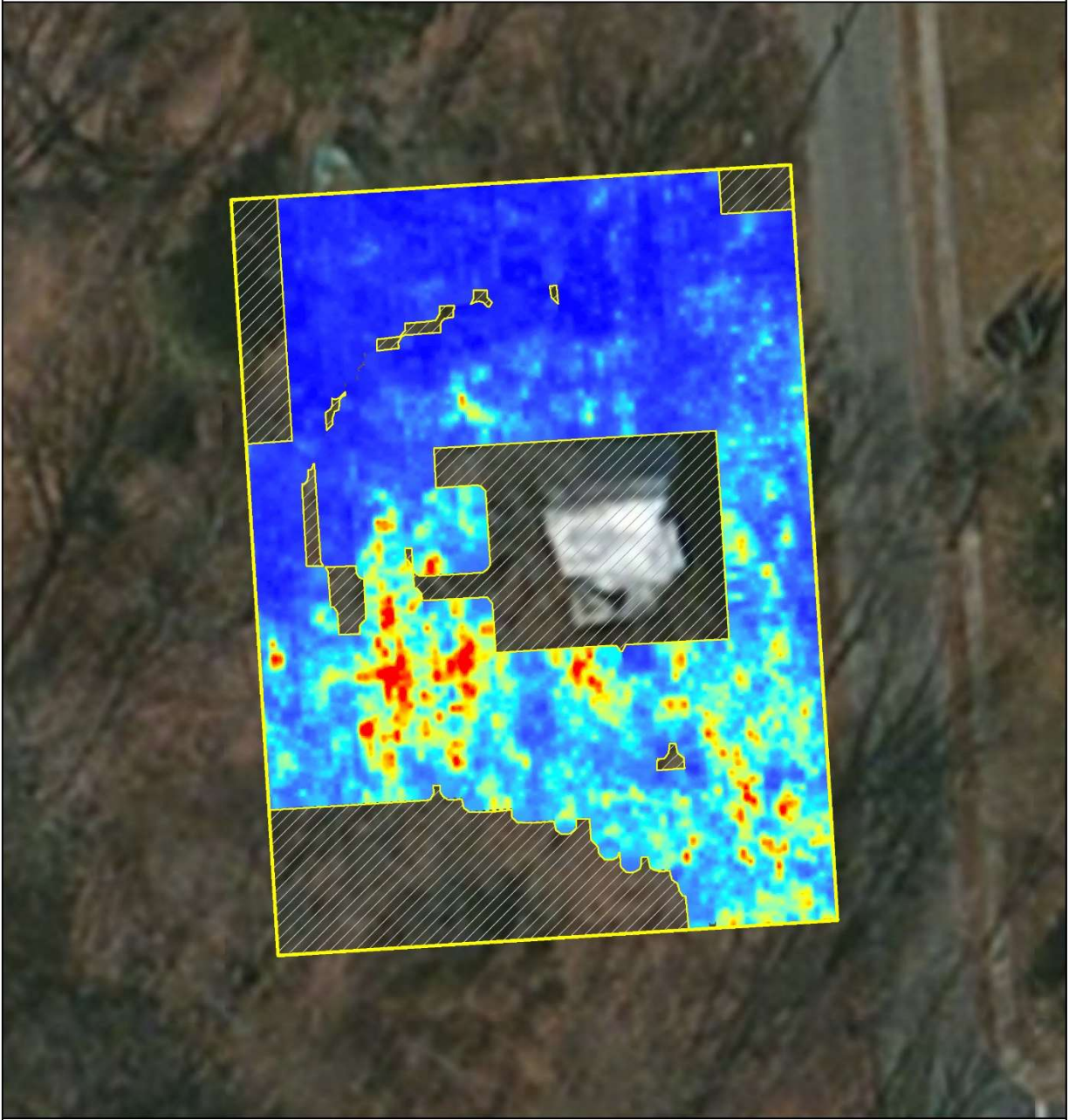


0 7.5 15 30 Feet
0 2.5 5 10 Meters

1.80 - 1.90 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice

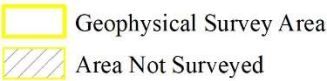
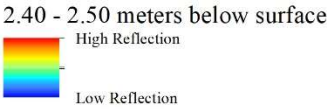
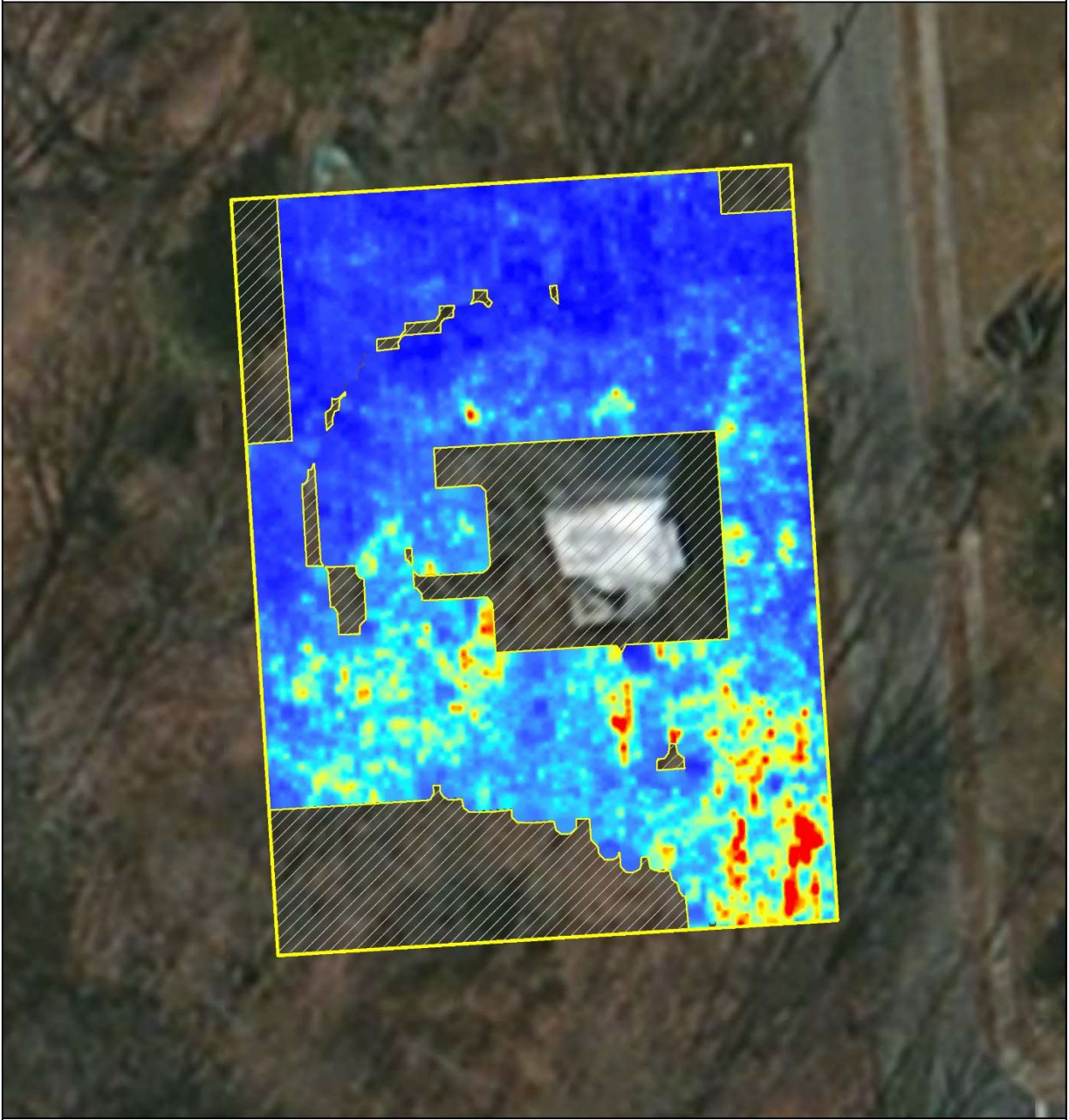


0 7.5 15 30 Feet
0 2.5 5 10 Meters

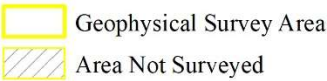
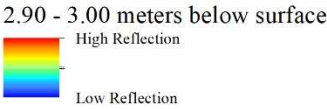
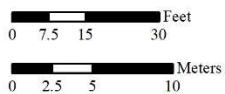
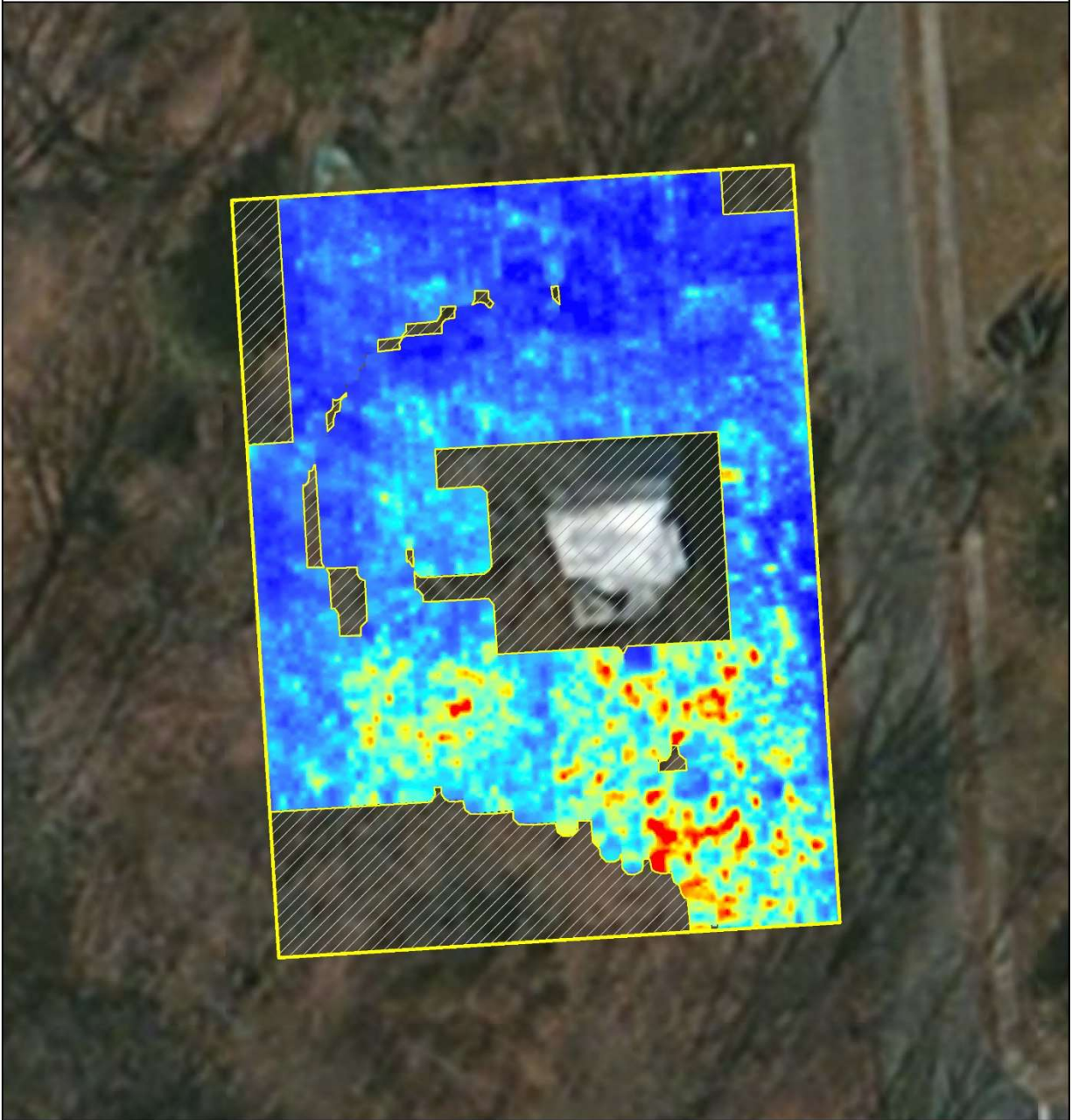
2.00 - 2.10 meters below surface
High Reflection
Low Reflection

Geophysical Survey Area
Area Not Surveyed

Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice



Zabriskie-Schedler House GPR Survey
Village of Ridgewood, Bergen County, NJ
GPR Slice



Appendix C: Annotated Bibliography

Author: Olivier Vansassenbrouck

Title: Geophysical Survey Using Ground-Penetrating Radar: Zabriskie-Schedler House, 460 West Saddle River Road, Village of Ridgewood, Bergen County, New Jersey

Date: December 2023

RGA Database Title: Zabriskie-Schedler House

RGA Project No.: 2023-249NJ

State: New Jersey

County: Bergen County

USGS Quad: Hackensack, New Jersey

Drainage Basin: Saddle River, Passaic River, Newark Bay, Raritan Bay, Atlantic Ocean

Regulation: New Jersey Register of Historic Places Act (N.J.A.C. 7:4)

Project Type: Park development

Project Sponsor: Village of Ridgewood

Client: Village of Ridgewood

Level of Survey: Geophysical Survey (GPR)

Cultural Resources: Zabriskie-Schedler House

Geophysical Anomalies: 4 GPR anomalies

APPENDIX B: QUALIFICATIONS OF THE PRINCIPAL INVESTIGATOR



YEARS OF EXPERIENCE

With this firm: 2020-Present
With other firms: 2

EDUCATION

M.A. 2014

University of Chicago
Social Sciences / Archaeology

B.A. 2012

The University of Texas at Austin
Anthropology and Classical
Archaeology

PROFESSIONAL REGISTRATION

Register of Professional
Archaeologists

PROFESSIONAL TRAINING

40-hour Hazardous Waste
Operations and Emergency
Response (OSHA 29 CFR
1910.120), July 2020

NJ Transit Contractor
Safety/RWP Training, September
2020

PROFESSIONAL AFFILIATIONS

Archaeological Society of New
Jersey (ASNJ)

Society for Historical
Archaeology (SHA)

NICOLE M. HERZOG
ARCHAEOLOGIST (36 CFR 61)

Nicole M. Herzog is an Archaeologist at RGA with experience conducting archaeological field investigations for Phase I, II and III archaeological projects in New Jersey, Pennsylvania, Washington D.C., New Hampshire, North Dakota, Delaware, and New Mexico. Ms. Herzog's experience includes in field and laboratory artifact analysis and processing, and report writing. She has worked on cultural resources surveys prepared in accordance with Section 106 of the National Historic Preservation Act and other municipal and state cultural resource regulations. Ms. Herzog's educational and professional background meet the qualifications set forth in the Secretary of Interior's Standards for Archaeologists [36 CFR 61].

REPRESENTATIVE PROJECT EXPERIENCE:

Monroe Source Point, Monroe Township, Bradford County, PA (Sponsor: JHA Companies) Principal Investigator of Phase I archaeological survey performed for a proposed surface water withdrawal along the Towanda River. The survey was requested by PA SHPO due to the area's high probability for pre-Contact archaeological resources. A preliminary examination of CRGIS indicates that three pre-Contact archaeological sites and one historic archaeological site are mapped within one mile. A total of sixty-four (64) shovel test pits were excavated. Subsurface testing identified one isolated prehistoric flake and a very low-density scatter of nineteenth- through twentieth-century historic artifacts. None of the identified cultural material is considered to be potentially significant archaeological resources, and no further survey was recommended. The Pennsylvania State Historic Preservation Office concurred with the recommendation.

Confidential Energy Project, Susquehanna County, PA (Sponsor: Confidential Client) Co-Principal Investigator for a Phase I archaeological survey for the expansion of an HP Gas Cooling system at a natural gas compressor station facility in northeastern Pennsylvania. RGA reviewed background research via PA SHPO's on line files and archaeological fieldwork to identify the presence or absence of archaeological sites. A list of consulting parties, including federally recognized tribes, was developed. The survey was performed in accordance with Section 106 and Federal Energy Regulatory Commission (FERC) guidelines.

Jumping Brook Water Treatment Plant Site Upgrades, Neptune Township, Monmouth County, NJ (Sponsor: New Jersey American Water) Co-Principal Investigator for the Phase IA historical and archaeological survey to assess the archaeological sensitivity of a property for proposed upgrades to the existing water treatment plant site. Areas of archaeological and historical sensitivity were identified and delineated. This survey was performed in accordance with the archaeological guidelines of the NJ Historic Preservation Office and in compliance with the Freshwater Wetlands Protection Act (Section 7:7A).

Schaechter Farm Stream Habitat Improvements, Rumney, Grafton County, NH (Sponsor: USDA-NRCS) Archaeologist and report author for the Phase IB archaeological survey performed on behalf of the USDA Natural Resource Conservation Service (USDA-NRCS) for proposed stream habitat improvements. Twenty-three (23) shovel test pits were excavated along a linear transect at 8-meter intervals within the project's Area of Potential Effects (APE). The archaeological investigation did not identify any potentially significant Pre-Contact or historic period archaeological resources within the APE. No additional archaeological survey was recommended. Under Section 106, a finding of No Effect on historic properties is also recommended. The New Hampshire Division of Historical Resources concurred with the recommendation.

APPENDIX C: AGENCY REVIEW CORRESPONDENCE

Nicole Herzog

From: Paul McEachen
Sent: Wednesday, December 6, 2023 3:35 PM
To: Nicole Herzog
Subject: FW: Zabriskie-Schedler House Site Upgrades Project(HPO Project No. 20-0608)
(2023-04-216NJ)

From: Maresca, Vincent [DEP] <Vincent.Maresca@dep.nj.gov>
Sent: Friday, May 12, 2023 9:08 AM
To: West-Rosenthal, Jesse [DEP] <Jesse.West-Rosenthal@dep.nj.gov>; Margaret M. Hickey, AIA <margaret@chhistoricalarchitects.com>; Leynes, Jennifer [DEP] <Jennifer.Leynes@dep.nj.gov>
Subject: RE: Zabriskie-Schedler House Site Upgrades Project(HPO Project No. 20-0608)

Hello Margaret,

As RGA has the capability to do geophysical survey (GPR, Magnetometer, etc.), it would enhance any Phase I archaeological survey effort. Metal detecting is required here based on high sensitivity for Revolutionary War resources. Finally, RGA knows our Phase I survey rules so they are free to use whatever shovel test interval strategy they choose as long as it conforms to our 17 tests per acre average. We do always request close-interval testing around any pre-Contact or eighteenth century artifacts to confirm if they are an isolated find spot or not.

Please let me know if you have any questions. Regards,

Vincent Maresca, M.A. | Program Specialist 2 | Historic Preservation Office
Department of Environmental Protection | Mail Code 501-04B | PO Box 420 | Trenton, NJ 08625-0420
P: (609) 633-2395 | F: (609) 984-0578 | vincent.maresca@dep.nj.gov | Website: <http://www.nj.gov/dep/hpo>



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From: West-Rosenthal, Jesse [DEP] <Jesse.West-Rosenthal@dep.nj.gov>
Sent: Friday, May 12, 2023 8:42 AM
To: Margaret M. Hickey, AIA <margaret@chhistoricalarchitects.com>; Leynes, Jennifer [DEP] <Jennifer.Leynes@dep.nj.gov>
Cc: Maresca, Vincent [DEP] <Vincent.Maresca@dep.nj.gov>
Subject: RE: Zabriskie-Schedler House Site Upgrades Project

Hi Margaret,

Vincent from our office is actually the one who has been consulting on this project. I have copied him on this e-mail. He should be able to answer your questions.

Take Care,
Jesse

Jesse West-Rosenthal, Ph.D.
Program Specialist 2
Historic Preservation Office
NJ Department of Environmental Protection
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APPENDIX D: SUMMARY OF NATIONAL REGISTER CRITERIA

Significant historic properties include districts, structures, objects, or sites that are at least 50 years of age and meet at least one National Register criterion. Criteria used in the evaluation process are specified in the Code of Federal Regulations, Title 36, Part 60, National Register of Historic Places (36 CFR 60.4). To be eligible for inclusion in the National Register of Historic Places, a historic property(s) must possess:

the quality of significance in American History, architecture, archaeology, engineering, and culture [that] 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 patterns 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 values, or that represent a significant and distinguishable entity whose components lack individual distinction, or
- d) that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 60.4).

There are several criteria considerations. Ordinarily, cemeteries, birthplaces, or graves of historical figures, properties owned by religious institutions or used for religious purposes, structures that have been moved from their original locations, reconstructed historic buildings, properties primarily commemorative in nature, and properties that have achieved significance within the past 50 years shall not be considered eligible for the National Register of Historic Places. However, such properties will qualify if they are integral parts of districts that do meet the criteria or if they fall within the following categories:

- a) a religious property deriving primary significance from architectural or artistic distinction or historical importance, or
- b) a building or structure removed from its original location but which is significant primarily for architectural value, or which is the surviving structure most importantly associated with a historic person or event, or
- c) a birthplace or grave of a historical figure of outstanding importance if there is no other appropriate site or building directly associated with his/her productive life, or
- d) a cemetery which derives its primary significance from graves of persons of transcendent importance, from age, from distinctive design features, or from association with historic events, or
- e) a reconstructed building when accurately executed in a suitable environment and presented in a dignified manner as part of a restoration master plan, and when no other building or structure with the same association has survived, or
- f) a property primarily commemorative in intent if design, age, tradition, or symbolic value has invested it with its own historic significance, or
- g) a property achieving significance within the past 50 years if it is of exceptional importance. (36 CFR 60.4)

When conducting National Register evaluations, the physical characteristics and historic significance of the overall property are examined. While a property in its entirety may be considered eligible based on Criteria A, B, C, and/or D, specific data is also required for individual components therein based on date, function, history, and physical characteristics, and other information. Resources that do not relate in a significant way to the overall property may contribute if they independently meet the National Register criteria.

A contributing building, site, structure, or object adds to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was present during the period of significance, and possesses historic integrity reflecting its character at that time or is capable of yielding important information about the period, or b) it independently meets the National Register criteria. A non-contributing building, site, structure, or object does not add to the historic architectural qualities, historic associations, or archeological values for which a property is significant because a) it was not present during the period of significance, b) due to alterations, disturbances, additions, or other changes, it no longer possesses historic integrity reflecting its character at that time or is incapable of yielding important information about the period, or c) it does not independently meet the National Register criteria.

APPENDIX E: SHOVEL TEST PIT LOG

APPENDIX E: SHOVEL TEST PIT LOG

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
001	0.0-0.5	O	10YR 2/2	Sandy Loam w/ Roots	NCM
	0.5-0.9	Ap	10YR 3/3	Sandy Loam w/ Roots & 20% Pebbles	NCM
	0.9-2.4	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 20% Pebbles & Cobbles	NCM
002	0.0-0.35	O	10YR 2/2	Sandy Silt Loam w/ Roots & 40% Rocks	NR
	0.35-0.85	Fill 1	10YR 3/6	Sandy Silt Loam w/ Roots & 40% Rocks	NCM
	0.85-2.05	Apb	10YR 4/6	Silty Clay w/ 40% Rocks	NCM
	2.05-3.0	B	7.5YR 4/6	Sand w/ 70% Pebbles	NCM
003	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus	NCM
	0.3-0.8	Ap	10YR 3/3	Sandy Loam w/ Roots & 20% Pebbles	NCM
	0.8-2.3	B	7.5YR 5/6	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.3-3.0	C	7.5YR 4/6	Sandy Silt Loam w/ 25% Pebbles & Cobbles	NCM
004	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 20% Rocks	NCM
	0.4-0.8	Ap	10YR 3/3	Sandy Loam w/ Roots & 30% Rocks	NCM
	0.8-2.4	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 25% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 10% Pebbles & Cobbles	NCM
005	0.0-0.3	O	10YR 3/4	Loamy Sand w/ Roots & 60% Rocks	NCM
	0.3-0.55	Fill 1	10YR 2/2	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
	0.55-2.05	Apb	10YR 4/4	Silty Clay w/ Roots & 60% Pebbles	NCM
	2.05-3.0	B	10YR 3/6	Sand w/ Roots & 60% Pebbles	NCM
006	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 10% Pebbles	NCM
	0.4-1.0	Ap	10YR 3/3	Loamy Sand w/ Roots & 10% Pebbles	NCM
	1.0-2.3	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 20% Pebbles & Cobbles	NCM
	2.3-3.0	C	7.5YR 4/6	Sand w/ 30% Pebbles & Cobbles	NCM
007	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 10% Rocks	NCM
	0.4-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 20% Rocks	NCM
	0.9-2.2	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
	2.2-3.0	C	7.5YR 4/6	Sand w/ 40% Pebbles & Cobbles	NCM
008	0.0-1.2	A	10YR 3/4	Silt Loam w/ Roots	NR
	1.3-2.4	B	7.5YR 4/6	Sandy Loam w/ Roots & 25% Pebbles	NCM
					Stopped by root impasse
009	0.00-0.95	Fill 1	10YR 3/3	Silt w/ Roots & 50% Rocks	HM
	0.95-2.01	B	10YR 3/6	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
					Stopped by rock

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
010	0.0-1.0	Ap	10YR 3/3	Loamy Sand w/ Roots & 10% Pebbles	NCM
	1.0-2.5	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
	2.5-3.0	C	7.5YR 4/6	Sand w/ 25% Pebbles & Cobbles	NCM
011	0.0-0.8	A1	10YR 3/2	Sandy Clay Loam w/ Roots	HM; NR
	0.8-1.3	A2	10YR 3/4	Sandy Silt Loam w/ Roots	PM; HM
	1.3-2.4	B	7.5YR 4/6	Sandy Loam w/ 25% Pebbles	PM
	2.4-3.0	BC	7.5YR 5/8	Loamy Sand w/ 50% Pebbles	NCM
011 E10	0.0-0.6	O	10YR 2/2	Sandy Silt Loam w/ Roots	NCM
	0.6-1.5	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 20% Pebbles & Cobbles	HM
	1.5-2.2	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.2-2.7	C	7.5YR 4/6	Sandy Silt Loam w/ 50% Pebbles & Cobbles	NCM
011 E20	0.0-0.5	O	10YR 2/2	Sandy Silt Loam w/ Roots	NCM
	0.5-1.6	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 20% Pebbles & Cobbles	HM
	1.6-2.0	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
Stopped by root impasse					
011 N10	0.0-0.5	O	10YR 2/2	Sandy Silt Loam w/ Roots	NCM
	0.5-1.3	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 20% Pebbles & Cobbles	HM
	1.3-2.3	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.3-2.5	C	7.5YR 4/6	Sandy Silt Loam w/ 50% Pebbles & Cobbles	NCM
011 N20	0.0-1.0	Ap	7.5YR 3/4	Loamy Sand w/ Roots & 20% Pebbles & Cobbles	HM
	1.0-2.1	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.1-2.6	C	7.5YR 4/6	Sandy Silt Loam w/ 50% Pebbles & Cobbles	NCM
011 S10	0.0-0.7	Ap	10YR 3/3	Sandy Loam w/ Roots & 10% Pebbles	HM
	0.7-2.0	B	7.5YR 5/6	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.0-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM
011-S20	0.0-1.3	A	10YR 3/4	Sandy Silt Loam w/ Roots & 10% Rocks	NCM
	1.3-2.1	B	7.5YR 4/6	Sandy Clay Loam w/ Roots & 50% Pebbles	NCM
	2.1-2.5	C	7.5YR 5/8	Loamy Sand w/ 50% Pebbles	NCM
011-W10	0.0-0.4	A1	10YR 3/2	Sandy Clay Loam w/ Roots	NCM
	0.4-1.5	A2	10YR 3/4	Sandy Silt Loam w/ Roots & 10% Rocks	HM
	1.5-2.3	B	7.5YR 4/6	Sandy Loam w/ 25% Pebbles	NCM
	2.3-2.6	C	7.5YR 5/8	Loamy Sand w/ 50% Pebbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
011-W20	0.0-1.5	A	10YR 3/4	Sandy Silt Loam w/ Roots & 10% Rocks	HM
	1.5-3.0	B	7.5YR 4/6	Sandy Clay Loam w/ Roots & 50% Pebbles	NCM
012	0.0-0.5	Fill 1	10YR 3/3	Sandy Silt Loam w/ Roots & 50% Rocks	NCM
	0.5-1.2	Apb	10YR 3/4	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
	1.2-3.0	B	10YR 3/6	Silt Loam w/ Roots & 60% Rocks	NCM
013	0.0-0.7	Fill 1	10YR 6/4	Sandy Silt Loam w/ 60% Rocks	NCM
	0.7-1.1	Fill 2	10YR 5/2	Silt w/ 70% Rocks	NCM Stopped by rock
014	Not excavated due to underwater				
015	0.0-1.0	Fill 1	10YR 4/3	Sandy Silt Loam w/ 30% Rocks	NCM
	1.0-2.3	B1	10YR 3/6	Silty Clay Loam w/ Roots & 25% Pebbles & Cobbles	NCM
	2.3-3.0	B2	10YR 4/6	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
016	0.0-0.6	Fill	10YR 3/2	Silt Loam	HM; NR
	0.6-1.5	Ab	10YR 4/3	Silty Clay Loam w/ Roots	HM
	1.5-2.3	B1	7.5YR 4/6	Sandy Loam w/ 20% Pebbles	NCM
	2.3-2.8	B2	7.5YR 4/4	Sandy Clay Loam w/ 30% Pebbles	NCM
017	0.0-0.4	Fill 1	10YR 3/4	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
	0.40-0.65	Fill 2	10YR 3/3	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
	0.65-1.30	Fill 3	10YR 3/6	Silt Loam w/ Roots & 60% Rocks	HM Stopped by rock
018	0.0-0.8	Fill 1	10YR 6/4	Sandy Silt Loam w/ Roots & 60% Rocks	Stopped by rock
	0.8-1.8	Fill 2	10YR 4/6	Sandy Silt Loam w/ Roots & 60% Rocks	
	1.8-2.7	Fill 3	10YR 4/3	Sand w/ 60% Rocks	
019	0.00-0.35	Fill 1	10YR 2/1	Sandy Silt Loam w/ 60% Rocks	NCM
	0.35-0.74	Apb	10YR 5/4	Sandy Silt Loam w/ 60% Rocks	NCM Stopped by water
020	0.00-0.35	Fill 1	10YR 2/1	Sandy Silt Loam w/ 60% Rocks	NCM
	0.35-1.10	Apb	10YR 5/6	Sandy Silt Loam w/ 60% Rocks	NCM Stopped by rock
021	0.0-1.2	Fill	10YR 4/3	Sandy Silt Loam w/ 60% Gravels, Rocks	NCM Stopped by rock
022	0.0-0.4	Fill	10YR 4/2	Loam w/ 10% Gravels	HM
	0.4-1.3	Ab	10YR 4/3	Silt Loam w/ Roots & 10% Pebbles & Cobbles	HM; NR
	1.3-1.6	B	10YR 3/6	Sandy Silt Loam w/ Roots & 10% Pebbles & Cobbles	NCM Stopped by root impasse

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
023	0.00-0.55	Fill 1	10YR 6/4	Sandy Silt Loam w/ Roots & 60% Rocks	NR
	0.55-0.90	Fill 2	10YR 2/1	Sandy Silt Loam w/ Roots & 60% Rocks	NCM
	0.90-1.75	Fill 3	10YR 4/6	Silt w/ Roots & 70% Rocks	HM
	1.75-2.70	C	10YR 3/6	Sand w/ Roots & 70% Rocks	NCM
					Stopped by rock
024	0.0-0.5	Fill 1	10YR 4/3	Coarse Sand w/ 25% Rocks	HM
	0.5-1.0	Fill 2	7.5YR 4/2	Sand w/ 25% Pebbles & Cobbles	HM
	1.0-1.7	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 20% Pebbles & Cobbles	NCM
					Stopped by root impasse
024 E25	0.0-1.3	Fill 1	10YR 3/3	Silty Clay Loam w/ Roots & 40% Gravels	NCM
					Stopped by rock
024 N25	0.0-0.9	Fill 1	10YR 4/3	Silt Loam w/ Roots & 25% Gravels	NCM
	0.9-2.2	B	7.5YR 5/4	Silty Clay Loam w/ Roots & 20% Pebbles & Cobbles	NCM
	2.2-2.4	C	7.5YR 4/6	Sandy Silt Loam w/ 50% Pebbles	NCM
025	0.0-1.3	Fill 1	10YR 2/2	Loamy Sand w/ 50% Gravels	HM
					Stopped by rock
026	0.00-0.25	O	10YR 2/2	Silty Clay Loam w/ 60% Rocks	NCM
	0.25-0.30	Fill 1	7.5YR 5/2	Silty Clay w/ 60% Rocks	NCM
	0.30-1.30	Apb	5YR 4/4	Silty Clay w/ 60% Rocks	NCM
					Stopped by rock
027	0.0-0.8	Fill 1	10YR 4/4	Loamy Sand w/ Roots & 50% Gravels & Rocks	NR
	0.8-3.0	B	7.5YR 4/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
028	0.0-1.0	Fill 1	7.5YR 4/2	Sandy Silt Loam w/ 75% Gravels	NR
	1.0-1.5	Fill 2	10YR 2/2	Sandy Silt Loam w/ 60% Gravels	NR
					Stopped by rock
029	0.0-0.4	Fill 1	10YR 4/3	Sandy Loam w/ 20% Rocks	NCM
	0.4-0.7	Fill 2	7.5YR 4/2	Sand w/ 10% Rocks	NCM
	0.7-1.8	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
	1.8-3.0	C	7.5YR 4/6	Sand w/ 25% Pebbles & Cobbles	NCM
030	0.0-0.6	Fill 1	10YR 2/2	Loamy Sand w/ 90% Wood chips	NCM
	0.6-1.3	Fill 2	10YR 4/6	Loamy Sand w/ 25% Gravels	NCM
					Stopped by rock
					Surrounded by push piles
031	0.00-0.5	Oa	10YR 2/2	Sandy Silt Loam w/ Roots & 60% Rocks	HM
	0.5-1.15	B	10YR 4/3	Silty Clay w/ Roots & 60% Rocks	NCM
	1.15-2.50	C	7.5YR 4/6	Sand w/ Roots & 70% Pebbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
032	0.0-0.3	O	10YR 3/3	Loamy Sand w/ Roots	
	0.3-1.4	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	
	1.4-1.9	B	7.5YR 5/4	Loamy Sand w/ Roots & 40% Pebbles & Cobbles	NCM Stopped by rock
033	0.0-0.4	Fill 1	7.5YR 4/2	Sandy Silt Loam w/ Roots & 30% Gravels	NR
	0.4-1.4	Ab	7.5YR 4/4	Sandy Silt Loam w/ Roots & 60% Pebbles & Cobbles	NCM
	1.4-2.3	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 70% Pebbles & Cobbles	NCM Stopped by rock
034	0.0-0.7	Ap	10YR 3/3	Sandy Silt Loam w/ 10% Pebbles	NCM
	0.7-2.5	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.5-3.0	C	7.5YR 4/6	Sand w/ 40% Pebbles & Cobbles	NCM
035	0.0-0.8	Ap	10YR 3/3	Sandy Silt Loam w/ Roots & 20% Rocks	NCM
	0.8-2.3	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.3-3.0	C	7.5YR 4/6	Sand w/ 40% Pebbles & Cobbles	NCM
036	0.0-1.2	Fill 1	10YR 2/2	Loamy Sand w/ 40% Gravels	NCM
	1.2-1.7	Fill 2	10YR 4/4	Loamy Sand w/ 50% Gravels	NCM Stopped by rock Surrounded by push piles
037	0.0-1.2	Ap	10YR 3/4	Silt Loam w/ Roots & 50% Rocks	NCM Stopped by root impasse
038	0.0-0.3	O	10YR 3/3	Loamy Sand w/ Roots	NCM
	0.3-1.0	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	1.0-2.4	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.4-2.6	C	7.5YR 4/6	Sandy Silt Loam w/ 60% Pebbles & Cobbles	NCM
039	0.0-1.1	Ap	10YR 3/3	Sandy Silt Loam w/ Roots & 30% Pebbles	NCM
	1.1-3.0	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 70% Pebbles & Cobbles	NCM
040	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus & 10% Rocks	NCM
	0.3-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 20% Rocks	NR
	0.9-1.9	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 40% Pebbles & Cobbles	NCM
	1.9-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
041	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 10% Rocks	NCM
	0.4-1.0	Ap	10YR 3/3	Loamy Sand w/ Roots & 20% Rocks	NCM
	1.0-2.2	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 25% Pebbles & Cobbles	NCM
	2.2-3.0	C	7.5YR 4/6	Sand w/ 40% Pebbles & Cobbles	NCM
042	0.0-1.1	Fill	10YR 4/3	Loamy Sand w/ 30% Rocks	HM
	1.1-2.0	B	10YR 4/6	Sandy Silt Loam w/ 40% Rocks	NCM Stopped by rock
043	0.0-0.6	Ao	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	0.6-1.0	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM Stopped by root impasse
044	0.0-0.3	O	7.5YR 2.5/2	Silty Clay Loam w/ Roots & 50% Rocks	NCM
	0.3-1.0	Fill 1	10YR 3/3	Silty Clay w/ Roots & 60% Rocks	NCM
	1.00-1.75	Apb	10YR 4/6	Silty Clay w/ 60% Rocks	NCM Stopped by rock
045	0.0-0.9	Fill 1	10YR 4/3	Sandy Silt Loam w/ Roots & 50% Pebbles & Cobbles	NCM
	0.9-1.8	B	7.5YR 5/4	Loamy Sand w/ Roots & 40% Pebbles & Cobbles	NCM
	1.8-2.3	C	7.5YR 4/6	Sandy Silt Loam w/ 70% Pebbles & Cobbles	NCM
046	0.0-0.9	Ap	10YR 3/3	Sandy Silt Loam w/ Roots & 30% Pebbles	NCM
	0.9-2.3	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 60% Pebbles & Cobbles	NCM
	2.3-2.6	C	7.5YR 4/6	Sand w/ 70% Pebbles	NCM
047	0.0-0.9	Fill	10YR 4/4	Sandy Silt Loam w/ 50% Pebbles & Cobbles	NR
	0.9-1.3	Ab	7.5YR 5/4	Sandy Silt Loam w/ Roots & 25% Pebbles	NCM
	1.3-1.9	B	10YR 4/6	Sandy Clay Loam w/ Roots & 60% Pebbles & Cobbles	NCM
048	0.0-1.2	Fill	10YR 4/3	Sandy Silt Loam w/ 30% Rocks, Gravel	NR
	1.2-2.1	B	10YR 4/6	Sandy Silt Loam w/ 60% Rocks, Gravel	NCM Stopped by rock
049	0.0-0.9	Fill	10YR 4/3	Loamy Sand w/ 30% Rocks	NR
	0.9-1.8	B	10YR 4/6	Sandy Silt Loam w/ 60% Rocks	NCM Stopped by rock
050	0.0-0.3	O	10YR 2/2	Loamy Sand w/ Roots & 10% Pebbles	NCM
	0.3-2.2	B	7.5YR 5/6	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.2-3.0	C	7.5YR 4/6	Sand w/ 30% Pebbles & Cobbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
051	0.0-0.6	Ao	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	0.6-1.9	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	1.9-2.3	C	7.5YR 4/6	Sandy Silt Loam w/ 70% Pebbles	NCM
052	0.0-0.5	O	7.5YR 2.5/2	Silty Clay Loam w/ Roots & 60% Rocks	NCM
	0.5-0.85	Apb	10YR 3/3	Silty Clay w/ Roots & 60% Rocks	NCM
	0.85-3.00	B	7.5YR 4/6	Sandy Silt Loam w/ 75% Cobbles	NCM
053	0.0-0.9	Ap	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	0.9-2.3	B	7.5YR 5/4	Loamy Sand w/ Roots & 40% Pebbles & Cobbles	NCM
	2.3-2.7	C	7.5YR 4/6	Silty Clay Loam w/ 60% Pebbles	NCM
054	0.0-1.0	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Pebbles	NCM
	1.0-2.5	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
	2.5-2.8	C	7.5YR 4/6	Sand w/ 70% Pebbles	NCM
055	0.0-0.6	Fill 1	10YR 2/2	Sandy Silt Loam w/ 50% Gravels	NCM
					Stopped by rock Area cleared for access
056	0.0-0.7	Fill 1	10YR 3/3	Sandy Silt Loam w/ 60% Pebbles & Cobbles	NCM
	0.7-1.8	Fill 2	10YR 4/4 m/w 10YR 3/4	Sandy Loam w/ Roots & 75% Pebbles & Cobbles	HM; NR
	1.8-2.0	Apb	7.5YR 5/4	Sandy Loam w/ Humus & 10% Pebbles	HM
	2.0-2.4	B	10YR 4/6	Sandy Loam w/ Roots & 50% Pebbles & Cobbles	NCM
					Stopped by rock
057	0.0-0.9	Ap	10YR 3/3	Sandy Silt Loam w/ Roots & 20% Rocks	NCM
	0.9-2.3	B	7.5YR 5/4	Sandy Clay Loam w/ Roots & 30% Rocks	NCM
	2.3-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM
058	0.0-0.8	Ap	10YR 3/3	Sandy Silt Loam w/ Roots & 25% Rocks	NCM
	0.8-2.5	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Rocks	NCM
	2.5-3.0	C	7.5YR 4/6	Sand w/ 25% Pebbles & Cobbles	NCM
059	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus & 10% Pebbles	NCM
	0.3-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 20% Pebbles	NCM
	0.9-2.4	B	7.5YR 5/6	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 25% Pebbles & Cobbles	NCM
060	0.0-0.9	Ao	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	0.9-2.0	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.0-2.3	C	7.5YR 4/6	Silty Clay Loam w/ 60% Pebbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
061	0.0-0.2	O	7.5YR 2.5/2	Silty Clay Loam w/ Roots & 60% Rocks	NCM
	0.2-0.6	Fill 1	10YR 3/3	Silty Clay w/ Roots & 70% Rocks	NCM
	0.6-1.5	Apb	7.5YR 4/6	Silty Clay w/ Roots & 70% Rocks	NCM
	1.5-2.1	B	7.5YR 4/6	Sandy Silt Loam w/ 75% Cobbles	NCM
					Stopped by rock
062	0.0-0.8	Ap	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NR
	0.8-1.7	B	7.5YR 5/4	Loamy Sand w/ Roots & 40% Pebbles & Cobbles	NCM
					Stopped by root impasse
063	0.0-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Pebbles	NCM
	0.9-1.4	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM
					Stopped by root impasse
064	0.0-0.3	Fill 1	10YR 2/2	Loamy Sand w/ 75% Gravels, asphalt, rock	NCM
					Stopped by gravel and asphalt Surrounded by push piles
065	0.0-0.4	O	10YR 2/2	Loam	NR
	0.4-1.1	Apb	10YR 3/3	Sandy Silt Loam w/ Roots	NCM
	1.1-1.7	B1	10YR 4/6	Sandy Loam w/ Roots & 20% Pebbles	NCM
	1.7-2.6	B2	7.5YR 5/4	Loamy Sand w/ Roots & 40% Pebbles	NCM
					Stopped by root impasse
066	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus	NCM
	0.3-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Pebbles	NCM
	0.9-2.4	B	7.5YR 5/6	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM
067	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 10% Rocks	NCM
	0.4-0.9	Ap	10YR 3/3	Loamy Sand w/ Roots & 20% Rocks	NCM
	0.9-2.4	B	7.5YR 5/6	Sandy Silt Loam w/ 25% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 40% Pebbles & Cobbles	NCM
068	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 10% Pebbles	NCM
	0.4-0.9	Ap	10YR 3/3	Sandy Loam w/ Roots & 20% Pebbles	NCM
	0.9-2.3	B	7.5YR 5/6	Loamy Sand w/ Roots & 40% Pebbles & Cobbles	NCM
	2.3-3.0	C	7.5YR 4/6	Sand w/ 25% Pebbles & Cobbles	NCM
069	0.0-1.0	Ap	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	1.0-2.0	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.0-2.2	C	7.5YR 4/6	Silty Clay Loam w/ 60% Pebbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
070	0.0-0.35	O	7.5YR 4/6	Silty Clay Loam w/ Roots & 60% Cobbles	NCM
	0.35-0.9	Fill 1	10YR 3/3	Silty Clay Loam w/ Roots & 70% Cobbles	NCM
	0.9-2.1	Fill 2	7.5YR 4/6	Silty Clay w/ Roots & 70% Cobbles	NCM Stopped by rock
071	0.0-0.9	Ap	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	0.9-2.1	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM
	2.1-2.4	C	7.5YR 4/6	Silty Clay Loam w/ 60% Pebbles	NCM
072	0.0-0.7	Oa	10YR 3/3	Loamy Sand w/ Roots & Humus w/ 10% Pebbles	NCM
	0.7-1.5	B	7.5YR 5/4	Sandy Silt Loam w/ Roots & 30% Pebbles & Cobbles	NCM Stopped by root impasse
073	0.0-0.4	O	10YR 2/2	Sandy Loam w/ Humus & 20% Rocks	NCM
	0.4-1.2	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Rocks	NR
	1.2-2.3	B	7.5YR 5/6	Sandy Silt Loam w/ 25% Pebbles & Cobbles	NCM
	2.3-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM
074	0.0-0.4	O	10YR 3/3	Sandy Silt Loam w/ Roots	NR
	0.4-1.0	Apb	7.5YR 3/4	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM
	1.0-1.8	B	7.5YR 5/4	Loamy Sand w/ Roots & 30% Pebbles & Cobbles	NCM Stopped by root impasse
075	0.0-0.6	O	10YR 2/1	Mulch	NCM
	0.6-1.0	Oa	7.5YR 2.5/3	Silt Loam w/ Roots	NR
	1.0-2.2	Apb	7.5YR 5/4	Sandy Silt Loam	NCM
	2.2-3.0	B	7.5YR 4/6	Sandy Loam w/ 20% Pebbles	NCM
076	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus	NCM
	0.3-1.0	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Rocks	NCM
	1.0-2.4	B	7.5YR 5/6	Loamy Sand w/ 40% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 50% Pebbles & Cobbles	NCM
077	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus & 10% Rocks	NCM
	0.3-0.8	Ap	10YR 3/3	Loamy Sand w/ Roots & 25% Rocks	NCM
	0.8-2.4	B	7.5YR 5/6	Sandy Silt Loam w/ Roots & 25% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 20% Pebbles & Cobbles	NCM
078	0.0-0.3	O	10YR 2/2	Sandy Loam w/ Humus & 10% Pebbles	NCM
	0.3-0.8	Ap	10YR 3/3	Sandy Loam w/ Roots & 25% Rocks	NCM
	0.8-2.2	B	7.5YR 5/6	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM
	2.2-3.0	C	7.5YR 4/6	Sand w/ 20% Pebbles & Cobbles	NCM

<u>STP</u>	<u>DEPTH*</u>	<u>STRATUM</u>	<u>MUNSELL</u>	<u>SOIL TYPE</u>	<u>COMMENTS/ ARTIFACTS</u>
079	0.0-0.7	Oa	10YR 3/3	Loamy Sand w/ Roots & 10% Pebbles & Cobbles	NCM Stopped by root impasse
080	0.0-0.5	Fill 1	10YR 4/2	Sandy Silt Loam w/ 30% Gravels, Rocks	NR
	0.5-1.1	Fill 2	10YR 2/2	Sandy Silt Loam w/ 40% Gravels, Rocks	NR
	1.1-2.5	B	2.5Y 4/4	Silt w/ Iron Oxide Staining & 60% Rocks	NCM
081	0.0-1.2	Fill 1	10YR 3/4	Loamy Sand w/ Roots & 40% Gravels	NR Stopped by rock Adjacent push pile and ground disturbance
082	0.0-0.4	Fill 1	10YR 3/2	Loamy Sand	
	0.4-0.8	Fill 2	10YR 5/6	Fine Sand	NR
	0.8-2.4	Fill 3	7.5YR 2.5/3	Sandy Loam w/ Roots & 10% Coal ash	HM; NR
	2.4-3.0	B	10YR 4/6	Sandy Loam w/ Roots & 10% Pebbles	
J-1	0.0-0.4	O	10YR 2/2	Loamy Sand w/ Humus & 10% Pebbles	NCM
	0.4-1.1	Apb	10YR 3/3	Loamy Sand w/ Roots & 20% Pebbles	HM
	1.1-2.4	B	7.5YR 4/6	Sandy Silt Loam w/ 40% Pebbles & Cobbles	NCM
	2.4-3.0	C	7.5YR 4/6	Sand w/ 60% Pebbles & Cobbles	NCM
J-2	0.0-1.1	Ao	10YR 2/2	Sandy Loam w/ Humus & Roots & 25% Rocks	HM Stopped by concrete
J-3	0.0-0.4	Oa	10YR 2/2	Sandy Loam w/ Humus	NR Stopped by flat stone paver
J-4	0.0-0.2	Fill 1	10YR 4/2	Loamy Sand w/ Humus & 10% Gravels	NR
	0.2-0.5	Fill 2	7.5YR 3/2	Coarse Sand	NCM
	0.5-1.2	Ab1	7.5YR 3/4	Sandy Loam w/ Roots	HM
	1.2-2.0	Ab2	7.5YR 4/3	Sandy Loam w/ Roots	HM
	2.0-2.6	B	7.5YR 5/4	Loamy Sand w/ Roots & 25% Pebbles & Cobbles	NCM Stopped by root impasse

Key:

*decimalized feet below ground surface

BGS= Below Ground Surface

HM= Historic Cultural Material

m/w= Mottled With

NCM= No Cultural Material

NR= Not Retained

PM= Pre-Contact Material

APPENDIX F: ARTIFACT CATALOG

APPENDIX F: ARTIFACT CATALOG

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
John A.L. Zabriskie House site (28-Bc-232)														
1	STP 09	1	0.00-0.95	Fill	1	DOM	Glass	Vessel	Condiment Bottle	Aqua, body/rim fragment, mold blown mouth, applied club sauce finish	1850-1895 (Lindsey 2020)			
2	STP 11	1	0.00-0.80	A1	1	DOM	Ceramic	Pearlware	Indeterminate Form	Base sherd, plain	1775-1830 (Miller et al 2000:12)			
2	STP 11	1	0.00-0.80	A1	1	DOM	Ceramic	Pearlware	Indeterminate Form	Base spall, exterior plain, tooled round footing	1775-1830 (Miller et al 2000:12)			
2	STP 11	1	0.00-0.80	A1	1	FUEL	Coal	Coal	Coal	Fragment				3.9
2	STP 11	1	0.00-0.80	A1	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments				2.5
2	STP 11	1	0.00-0.80	A1	1	FUEL	Slag	Slag	Slag	Fragment				2.3
2	STP 11	1	0.00-0.80	A1	1	ARCH	Red Clay	Fired Clay	Brick	Red fragment				1.2
2	STP 11	1	0.00-0.80	A1	1	HRDW	Ferrous Metal	Door Hardware	Latch and Screw	Complete hook latch attached to eye screw, heavily corroded				
2	STP 11	1	0.00-0.80	A1	2	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Shaft fragments, mended, heavily corroded				
3	STP 11	2	0.80-1.30	A2	1	TOB	White Clay	Tobacco Pipe	Pipe Stem	Fragment		3/32" Bore D.		
3	STP 11	2	0.80-1.30	A2	1	FUEL	Coal	Coal	Coal	Fragment				3.4
3	STP 11	2	0.80-1.30	A2	1	PRE	Chert	Debitage	Possible Flake Fragment	White and tan, matte		1.0-1.5cm	0	0.5
4	STP 11	3	1.30-2.40	B	1	PRE	Chert	Debitage	Flake Fragment	Grey, waxy		1.5-2.0cm	0	0.2
5	STP 11 E10	2	0.60-1.50	Apb	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body spall, one side plain	1820-present (Miller et al 2000:13)			
5	STP 11 E10	2	0.60-1.50	Apb	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment				3.6
6	STP 11 E20	2	0.50-1.60	Apb	1	CLO	Porcelaneous	Clothing Fastener	Button	Complete, pressed, 4-hole Prosser button, tire design	1840-1960 (Sprague 2002)	0.55" D.		
7	STP 11 N10	2	0.50-1.30	Apb	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body fragment, indeterminate manufacture				
7	STP 11 N10	2	0.50-1.30	Apb	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, plain	1820-present (Miller et al 2000:13)			
8	STP 11 N20	1	0.00-1.00	Ap	1	DOM	Ceramic	Redware	Pan/Charger	Body spall, remnant yellow trail slip decoration on the interior	Pre-1870 (Denker & Denker 1985)			
8	STP 11 N20	1	0.00-1.00	Ap	1	DOM	Ceramic	Creamware	Flatware	Body/rim spall, interior plain	1762-1820 (Miller et al 2000: 12)			
8	STP 11 N20	1	0.00-1.00	Ap	1	DOM	Ceramic	Pearlware	Hollowware	Body sherd, dipt, dark brown and green banded	1775-1860 (MACL 2015a)			
9	STP 11 S10	1	0.00-0.70	Ap	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body fragment, indeterminate manufacture				

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
9	STP 11 S10	1	0.00-0.70	Ap	1	DOM	Ceramic	Pearlware	Indeterminate Form	Base/body sherd, plain, undercut footring	1775-1830 (Miller et al 2000:12)			
9	STP 11 S10	1	0.00-0.70	Ap	1	DOM	Ceramic	Whiteware	Plate	Body/rim sherd, blue shell-edged impressed line, indeterminate diameter	1840-1870 (MACL 2015b)			
10	STP 11 W10	2	0.40-1.50	A2	1	FUEL	Coal	Coal	Coal	Fragment				0.7
10	STP 11 W10	2	0.40-1.50	A2	1	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragment				5.0
11	STP 11 W20	1	0.00-1.50	A	1	ARCH	Glass	Flat	Window	Aqua fragment				
11	STP 11 W20	1	0.00-1.50	A	2	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd and spall, plain	1820-present (Miller et al 2000:13)			
11	STP 11 W20	1	0.00-1.50	A	1	FUEL	Coal	Coal	Coal	Fragment				5.5
11	STP 11 W20	1	0.00-1.50	A	1	ARCH	Red Clay	Fired Clay	Brick	Orange fragment				0.2
11	STP 11 W20	1	0.00-1.50	A	1	ACT	Ferrous Metal	Miscellaneous Metal	Bike Chain	Fragment, heavily corroded				
11	STP 11 W20	1	0.00-1.50	A	1	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Head and shaft fragment, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
12	STP 16	1	0.00-0.60	Fill	3	ARCH	Glass	Flat	Window	Aqua fragments				
12	STP 16	1	0.00-0.60	Fill	1	DOM	Ceramic	Redware	Indeterminate Form	Body spall, interior unglazed				
12	STP 16	1	0.00-0.60	Fill	1	DOM	Ceramic	Creamware	Indeterminate Form	Body spall, one side plain	1762-1820 (Miller et al 2000: 12)			
12	STP 16	1	0.00-0.60	Fill	3	DOM	Ceramic	Creamware	Hollowware	Body sherd and spalls, dipt, polychrome marbled/combed, (2) mend	1770-1820 (MACL 2015a)			
12	STP 16	1	0.00-0.60	Fill	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body/rim sherd, underglaze painted earth tone orange rim band, indeterminate diameter	1795-1830 (Miller et al 2000:12)			
12	STP 16	1	0.00-0.60	Fill	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body spall, interior plain	1820-present (Miller et al 2000:13)			
12	STP 16	1	0.00-0.60	Fill	1	FUEL	Coal	Coal	Coal	Fragment				9.8
12	STP 16	1	0.00-0.60	Fill	1	ARCH	Red Clay	Fired Clay	Brick	Orange fragment				2.4
12	STP 16	1	0.00-0.60	Fill	3	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded				
12	STP 16	1	0.00-0.60	Fill	1	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Head and shaft fragment, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
12	STP 16	1	0.00-0.60	Fill	1	ARCH	Ferrous Metal	Nail	Wire Nail	Head and shaft fragment, heavily corroded	1879-present (Wells 1998:92)			
13	STP 16	2	0.60-1.50	Ab	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body spall, exterior plain	1775-1830 (Miller et al 2000:12)			
13	STP 16	2	0.60-1.50	Ab	2	DOM	Ceramic	Pearlware	Indeterminate Form	Body spalls, underglaze earth tones interior, partial green strokes visible	1795-1830 (Miller et al 2000:12)			

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
13	STP 16	2	0.60-1.50	Ab	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, underglaze earth tones interior, orange/brown line visible	1795-1830 (Miller et al 2000:12)			
13	STP 16	2	0.60-1.50	Ab	2	DOM	Ceramic	Pearlware	Plate	Body sherds, mended, blue shell-edge decoration, straight lines, scalloped, indeterminate diameter	1800-1840 (MACL 2015b)			
13	STP 16	2	0.60-1.50	Ab	1	DOM	Ceramic	White-Bodied Refined Earthenware	Hollowware	Body spall, dipt, polychrome marbled/combed	1770-1820 (MACL 2015a)			
13	STP 16	2	0.60-1.50	Ab	1	FUEL	Charcoal	Charcoal	Charcoal	Fragment				0.1
13	STP 16	2	0.60-1.50	Ab	1	ARCH	Red Clay	Fired Clay	Brick	Orange fragment				0.3
13	STP 16	2	0.60-1.50	Ab	2	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Flattish fragments, heavily corroded				
13	STP 16	2	0.60-1.50	Ab	2	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded				
13	STP 16	2	0.60-1.50	Ab	1	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Head and shaft fragment, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
13	STP 16	2	0.60-1.50	Ab	1	ARCH	Ferrous Metal	Nail	Wire Nail	Almost complete, heavily corroded	1879-present (Wells 1998:92)			
14	STP 17	3	0.65-1.30	Fill 3	1	DOM	Ceramic	Pearlware	Indeterminate Form	Base spall, exterior plain, undercut footring	1775-1830 (Miller et al 2000:12)			
14	STP 17	3	0.65-1.30	Fill 3	8	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherds and spalls, plain, tooled round footring, mends	1820-present (Miller et al 2000:13)			
15	STP 22	1	0.00-0.40	Fill	2	ARCH	Glass	Flat	Window	Aqua fragments				
15	STP 22	1	0.00-0.40	Fill	1	DOM	Ceramic	Redware	Hollowware	Body/coggled rim sherd, manganese glazed interior and exterior, rouletted vertical bands within horizontal bands exterior, possibly red-bodied refined earthenware, indeterminate diameter				
15	STP 22	1	0.00-0.40	Fill	2	DOM	Ceramic	Creamware	Indeterminate Form	Base spalls, one side plain	1762-1820 (Miller et al 2000: 12)			
15	STP 22	1	0.00-0.40	Fill	7	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Flat fragments with one edge folded over, corroded				
16	STP 22	2	0.40-1.30	Ab	1	DOM	Ceramic	Redware	Hollowware	Body spall, dark brown lead glazed interior, possible body/handle junction				
16	STP 22	2	0.40-1.30	Ab	1	DOM	Ceramic	Creamware	Indeterminate Form	Body sherd, plain	1762-1820 (Miller et al 2000: 12)			
16	STP 22	2	0.40-1.30	Ab	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body sherd, plain	1820-present (Miller et al 2000:13)			
16	STP 22	2	0.40-1.30	Ab	1	FUEL	Coal	Coal	Coal	Fragment, Sampled				2.5
16	STP 22	2	0.40-1.30	Ab	1	ARCH	Red Clay	Fired Clay	Brick	Orange fragment, Sampled				7.3

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
16	STP 22	2	0.40-1.30	Ab	1	ARCH	Sandstone	Building Material	Possible Building Stone	Brown/grey with pebble and quartz inclusions, fragment				46.4
16	STP 22	2	0.40-1.30	Ab	1	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Blob of metal, heavily corroded over				
17	STP 23	3	0.90-1.75	Fill 3	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body sherd, plain	1775-1830 (Miller et al 2000:12)			
18	STP 24	1	0.00-0.50	Fill 1	2	CLO	Glass	Clothing Fastener	Button	Complete, black glass shank buttons, molded, decorative face contains alternating raised line and beaded/rhinestone band with curved leaf garland accented with bead "berries", tunnel shank		0.5" D.		
19	STP 24	2	0.50-1.00	Fill 2	1	DOM	Ceramic	Buff-Bodied Stoneware	Hollowware	Body sherd, black Albany slipped interior and exterior	1805-1920 (Miller et al 2000:10)			
20	STP 25	1	0.00-1.30	Fill 1	1	ARCH	Glass	Flat	Window	Aqua fragment				
20	STP 25	1	0.00-1.30	Fill 1	1	DOM	Glass	Vessel	Bottle	Amber, body/base fragment, mold blown indeterminate, visible mold seam				
20	STP 25	1	0.00-1.30	Fill 1	1	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Hollow square shape that becomes more rounded, solid square knob coming off one side, fragment, corroded				
21	STP 31	1	0.00-0.50	Oa	5	ARCH	Glass	Flat	Window	Aqua fragments				
22	STP 42	1	0.00-1.10	Fill 1	6	ARCH	Glass	Flat	Window	Aqua fragments				
22	STP 42	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle	Green, body fragment, indeterminate manufacture				
22	STP 42	1	0.00-1.10	Fill 1	6	DOM	Glass	Vessel	Bottle/Jar	Colorless, body fragments, indeterminate manufacture, (1) crizzled				
22	STP 42	1	0.00-1.10	Fill 1	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body fragment, mold blown indeterminate, visible mold seam, probably square/rectangular bottle				
22	STP 42	1	0.00-1.10	Fill 1	3	FUEL	Slag	Slag	Slag	Fragments				9.4
22	STP 42	1	0.00-1.10	Fill 1	1	ARCH	Red Clay	Fired Clay	Brick	Red fragment				1.4
22	STP 42	1	0.00-1.10	Fill 1	1	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Head and shaft fragment, heavily corroded				
23	STP 56	2	0.70-1.80	Fill 2	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body fragment, indeterminate manufacture				
23	STP 56	2	0.70-1.80	Fill 2	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body fragment, mold blown indeterminate, partial embossed letter visible				
23	STP 56	2	0.70-1.80	Fill 2	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body fragment, molded or pressed, paneled				
23	STP 56	2	0.70-1.80	Fill 2	1	MISC	White Metal	Miscellaneous Metal	Indeterminate Metal Item	Thin, flat, bent fragment, corroded				

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
23	STP 56	2	0.70-1.80	Fill 2	1	MISC	Composite	Asphalt	Pavement	Fragment	1871-present (Miller et al 2000:16)			6.0
24	STP 56	3	1.80-2.00	Apb	3	ARCH	Glass	Flat	Window	Aqua fragments	1892-present (Miller et al 2000:9)			
24	STP 56	3	1.80-2.00	Apb	1	ARCH	Glass	Flat	Safety Glass	Aqua fragment with imbedded chicken wire				
24	STP 56	3	1.80-2.00	Apb	1	DOM	Glass	Vessel	Bottle	Amber, body fragment, mold blown indeterminate, visible mold seam	1890-present (Miller et al 2000:13)			
24	STP 56	3	1.80-2.00	Apb	1	DOM	Ceramic	Porcelaneous	Indeterminate Form	Body/base sherd, plain				
24	STP 56	3	1.80-2.00	Apb	1	DOM	Ceramic	Porcelaneous	Flatware	Body sherd, residual overglaze red floral decal				
24	STP 56	3	1.80-2.00	Apb	1	FUEL	Slag	Slag	Slag	Fragment	1880-Mid-20th century (Lindsey 2020)			0.9
25	STP 82	3	0.80-2.40	Fill 3	3	ARCH	Glass	Flat	Window	Aqua fragments				
25	STP 82	3	0.80-2.40	Fill 3	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, body fragment, mold blown indeterminate, visible mold seam				
25	STP 82	3	0.80-2.40	Fill 3	3	DOM	Glass	Vessel	Jar Lid	Colorless, body/rim fragments, mended, pressed, lighting closure				
25	STP 82	3	0.80-2.40	Fill 3	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body/rim fragment, molded or pressed, vertical fluted pattern exterior, scalloped rim	1915-present (Miller et al. 2000:16)			
25	STP 82	3	0.80-2.40	Fill 3	1	DOM	Glass	Vessel	Indeterminate Vessel	Colorless, body fragment, indeterminate manufacture, possible vial or tube fragment				
25	STP 82	3	0.80-2.40	Fill 3	3	ACT	Ceramic	Terracotta	Flowerpot	Body sherd and spalls, unglazed				
25	STP 82	3	0.80-2.40	Fill 3	1	CLO	Plastic	Clothing Fastener	Button	Complete, black, 4-hole, tire design		0.6" D.		
25	STP 82	3	0.80-2.40	Fill 3	3	FUEL	Coal	Coal	Coal	Fragments	1876-present (Miller et al. 2000:16)			8.6
25	STP 82	3	0.80-2.40	Fill 3	2	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments				12.3
25	STP 82	3	0.80-2.40	Fill 3	1	FUEL	Slag	Slag	Slag	Fragment				3.9
25	STP 82	3	0.80-2.40	Fill 3	2	ARCH	Concrete	Building Material	Building Material	Fragments, one with asphalt or tar adhered				108.5
25	STP 82	3	0.80-2.40	Fill 3	1	ARCH	Red Clay	Fired Clay	Brick	Orange with molded decorative design on exterior, indeterminate pattern, smooth interior, unglazed, maybe a façade fragment		0.5" Th.		16.9
25	STP 82	3	0.80-2.40	Fill 3	1	ARCH	Red Clay	Fired Clay	Brick	Orange fragment				5.7
25	STP 82	3	0.80-2.40	Fill 3	1	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Open flower shape with a hole in the center, fragment, corroded				
25	STP 82	3	0.80-2.40	Fill 3	1	HRDW	Ferrous Metal	Fastener	Screw	Head and shaft fragment, possible flat head, corroded				

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
25	STP 82	3	0.80-2.40	Fill 3	3	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Head and shaft fragments, heavily corroded				
25	STP 82	3	0.80-2.40	Fill 3	2	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Shaft fragments, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
25	STP 82	3	0.80-2.40	Fill 3	2	ARCH	Ferrous Metal	Nail	Wire Nail	Head and shaft fragments, (1) clinched, some wood still attached, heavily corroded	1879-present (Wells 1998:92)			
25	STP 82	3	0.80-2.40	Fill 3	1	ARCH	Ferrous Metal	Nail	Wire Nail	Complete, some wood attached, corroded, 16d	1879-present (Wells 1998:92)	3.5" L.		
25	STP 82	3	0.80-2.40	Fill 3	1	ARCH	Ferrous Metal	Nail	Wire Nail	Complete, corroded, 10d	1879-present (Wells 1998:92)	3" L.		
25	STP 82	3	0.80-2.40	Fill 3	1	ARCH	Ferrous Metal	Nail	Wire Nail	Complete, roofing nail, barely corroded, 2d	1879-present (Wells 1998:92)	1" L.		
26	STP J-1	2	0.40-1.10	Apb	1	ARCH	Glass	Flat	Window	Aqua fragment				
26	STP J-1	2	0.40-1.10	Apb	2	DOM	Ceramic	Whiteware	Indeterminate Form	Base spalls, one side plain	1820-present (Miller et al 2000:13)			
26	STP J-1	2	0.40-1.10	Apb	2	DOM	Ceramic	Whiteware	Flatware	Body/rim sherds, plain, indeterminate diameter, mend	1820-present (Miller et al 2000:13)			
26	STP J-1	2	0.40-1.10	Apb	1	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Shaft fragment, heavily corroded				
26	STP J-1	2	0.40-1.10	Apb	1	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Shaft fragment, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
27	STP J-2	1	0.00-1.10	Ao	1	DOM	Glass	Vessel	Bottle	Emerald green, body fragment, indeterminate manufacture				
27	STP J-2	1	0.00-1.10	Ao	1	DOM	Glass	Vessel	Bottle/Jar	Colorless, rim fragment, mold blown indeterminate, indeterminate finish				
27	STP J-2	1	0.00-1.10	Ao	1	DOM	Ceramic	Creamware	Indeterminate Form	Body spall, one side plain	1762-1820 (Miller et al 2000: 12)			
27	STP J-2	1	0.00-1.10	Ao	1	DOM	Ceramic	Whiteware	Indeterminate Form	Base sherd, plain, partially charred/burned	1820-present (Miller et al 2000:13)			
27	STP J-2	1	0.00-1.10	Ao	2	DOM	Ceramic	Whiteware	Indeterminate Form	Body spalls, blue transfer printed indeterminate pattern interior, mend	1815-1915 (Azizi et al 1996)			
27	STP J-2	1	0.00-1.10	Ao	1	DOM	Ceramic	White-Bodied Refined Earthenware	Indeterminate Form	Body spall, blue transfer printed indeterminate pattern interior	1803-1915 (MACL 2015c; Azizi et al 1996)			
28	STP J-4	3	0.50-1.20	Ab1	1	DOM	Ceramic	Redware	Hollowware	Body spall, red/brown lead glazed on the interior				

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28	STP J-4	3	0.50-1.20	Ab1	1	DOM	Ceramic	Porcelaneous	Hollowware	Body/handle junction sherd, brown transfer printed indeterminate pattern interior, red and brown overglaze painted floral design exterior	1835-1915 (MACL 2015c; Azizi et al 1996)			
28	STP J-4	3	0.50-1.20	Ab1	2	FUEL	Coal	Coal	Coal	Fragments				15.3
28	STP J-4	3	0.50-1.20	Ab1	3	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments				8.6
28	STP J-4	3	0.50-1.20	Ab1	1	BIO	Faunal	Shell	Hard Clam	Right-sided hinge fragment				2.0
28	STP J-4	3	0.50-1.20	Ab1	2	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Head and shaft fragments, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			
29	STP J-4	4	1.20-2.00	Ab2	1	ARCH	Glass	Flat	Window	Aqua fragment				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Glass	Vessel	Bottle/Jar	Aqua, body fragment, mold blown indeterminate, partial embossed letter				
29	STP J-4	4	1.20-2.00	Ab2	1	LIGHT	Glass	Lamp	Lamp Chimney	Colorless, body fragment, indeterminate manufacture				
29	STP J-4	4	1.20-2.00	Ab2	3	DOM	Ceramic	Redware	Indeterminate Form	Body spalls, missing interior and exterior				
29	STP J-4	4	1.20-2.00	Ab2	4	DOM	Ceramic	Redware	Indeterminate Form	Base and body spalls, exterior unglazed				
29	STP J-4	4	1.20-2.00	Ab2	5	DOM	Ceramic	Redware	Hollowware	Body spalls, red/brown lead glazed one surface				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Redware	Hollowware	Body spall, brown lead glazed interior				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Redware	Hollowware	Body spall, dark brown lead glazed on the exterior				
29	STP J-4	4	1.20-2.00	Ab2	2	DOM	Ceramic	Redware	Hollowware	Body sherd and body/rim sherd, unglazed interior, dark brown manganese glazed exterior, folded over rim, indeterminate diameter				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Redware	Hollowware	Body/rim sherd, dark brown lead glazed interior and exterior, straight rim, indeterminate diameter				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Redware	Hollowware	Body sherd, mottled manganese/red glazed interior and exterior				
29	STP J-4	4	1.20-2.00	Ab2	2	DOM	Ceramic	Redware	Charger	Body/rim spalls, red/brown lead glazed interior, coggled rim, indeterminate diameter				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Redware	Charger	Coggled rim/body sherd, manganese glazed and yellow trailed slip decorated interior, indeterminate diameter	ca. 1770s-1815 (Magid and Means 2003)			
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Red-Bodied Refined Earthenware	Hollowware	Body sherd, red/brown lead glazed interior and exterior, shallow wavy engine-turned or rouletted band exterior				
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Creamware	Indeterminate Form	Base spall, exterior plain, tooled round footing	1762-1820 (Miller et al 2000: 12)			

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
29	STP J-4	4	1.20-2.00	Ab2	2	DOM	Ceramic	Pearlware	Indeterminate Form	Body spall and base/body spall (double uncut footring), plain	1775-1830 (Miller et al 2000:12)			
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Pearlware	Indeterminate Form	Body spall, speck of blue painted or printed decoration on one side	1775-1830 (Miller et al 2000:12)			
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	Whiteware	Indeterminate Form	Body spall, one side plain	1820-present (Miller et al 2000:13)			
29	STP J-4	4	1.20-2.00	Ab2	1	DOM	Ceramic	White-Bodied Refined Earthenware	Indeterminate Form	Body spall, missing interior and exterior				
29	STP J-4	4	1.20-2.00	Ab2	5	FUEL	Coal	Coal	Coal	Fragments				10.3
29	STP J-4	4	1.20-2.00	Ab2	4	FUEL	Coal Ash	Coal Ash	Coal Ash	Fragments				2.9
29	STP J-4	4	1.20-2.00	Ab2	7	BIO	Faunal	Bone	Mammal	Unidentified fragments				11.7
29	STP J-4	4	1.20-2.00	Ab2	17	BIO	Faunal	Shell	Hard Clam	(1) right-sided hinge fragment, (1) left sided hinge fragment, fragments				66.7
29	STP J-4	4	1.20-2.00	Ab2	5	ARCH	Red Clay	Fired Clay	Brick	Orange fragments				8.4
29	STP J-4	4	1.20-2.00	Ab2	3	ARCH	Ferrous Metal	Nail	Wire Nail	Head and shaft fragments, heavily corroded	1879-present (Wells 1998:92)			
29	STP J-4	4	1.20-2.00	Ab2	1	ARCH	Unidentified Stone	Building Material	Possible Building Stone	Dark grey fragment				28.1
30	MD 01-W			A	1	ACT	Ferrous Metal	Recreation Item	Gas Canister	Complete, corroded, resembles disposable CO ₂ airsoft pistol cartridge		3.25" L. x 0.75" D.		
31	MD 02-W		0.40	A	4	DOM	Ceramic	Whiteware	Flatware	Body/base sherds, flow blue printed indeterminate pattern interior, tooled round footring, mends	1835-1925 (Snyder 1992)			
31	MD 02-W		0.40	A	1	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Slightly curved fragment, corroded				
31	MD 02-W		0.40	A	1	ARCH	Ferrous Metal	Nail	Indeterminate Nail	Head and shaft fragment, clinched, heavily corroded				
32	MD 03-W				2	MISC	Ferrous Metal	Miscellaneous Metal	Indeterminate Metal Item	Curved fragments, possible exterior edge piece, corroded				
33	MD 04-W				1	MISC	Cast Iron	Miscellaneous Metal	Indeterminate Metal Item	Fragment, incised curved lines one surface, possible stove part, corroded				
34	MD 05-W				1	ACT	Ferrous Metal	Horse Furniture	Snaffle Bit	Near complete, twisted and joined, common O or full cheek ring, resembles Type VI (Hilliard 2013), corroded	1826-1955 (Hilliard 2013)			
35	MD 06-W				1	ARCH	Ferrous Metal	Nail	Wire Nail	Shaft fragment, heavily corroded	1879-present (Wells 1998:92)			
36	MD 07-W				7	ACT	Ferrous Metal	Fencing	Barbed Wire	Fragments, corroded	1886-present (Miller et al. 2000:15)			

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37	MD 08-W				5	ACT	Ferrous Metal	Fencing	Barbed Wire	Fragments, corroded	1886-present (Miller et al. 2000:15)			
38	MD 09-W				1	ARCH	Ferrous Metal	Nail	Wire Nail	Complete, slightly clinched, corroded, 16d	1879-present (Wells 1998:92)	3.5" L.		
39	MD 10-W				1	ACT	Ferrous Metal	Recreation Item	Bike Chain	Fragment, corroded				
40	MD 11-W				1	ACT	Ferrous Metal	Recreation Item	Bike Chain	Fragment, corroded				
41	MD 12-W				1	ARMS	Copper Alloy	Ammunition	Shotgun Shell	Head fragment, impressed head stamp reads, "UMC CO/NO. 12/NEW CLUB"	1892-1896 (AMD 2023)	0.8" D.		
42	MD 13-W				1	MISC	Ferrous Metal	Vessel	Handle	Complete, square with rounded attachment ends, possible bucket handle				
43	MD 14-W				1	MISC	Ferrous Metal	Miscellaneous Metal	Strap	Fragment, one end folded, bent corroded		1.15" W. x 0.1" Th.		
44	MD 15-W				2	MISC	Ferrous Metal	Miscellaneous Metal	Sheet Metal	Flat fragments, one fragment bent over end, corroded				
45	MD 16-W				1	ARCH	Ferrous Metal	Nail	Wire Nail	Almost complete, heavily corroded	1879-present (Wells 1998:92)			
46	MD 17-W				1	HRDW	Copper Alloy	Miscellaneous Hardware	Disc	Near complete, stamped floral and radiating lines exterior, possible animal tack, slightly corroded		1.75" D.		
47	MD 18-W				1	MISC	White Metal	Miscellaneous Metal	Indeterminate Metal Item	Fragment, angular edge or corner piece, corroded				
48	MD 19-W				1	DOM	Zinc Alloy	Vessel	Jar Lid	Interior inset fragment, corroded	1810-present (Lindsey 2022)			
49	MD 20-W				5	PERS	White Metal	Accoutrement	Pocket Watch	Frame, winding knob and loop fragments, diagonal incised lines visible on frame		2" D.		
50	MD 21-W				1	TOY	Ferrous Metal	Toy Vehicle	Wagon	Near complete, open rectangular bed and spoke wheels, remnant red paint visible, possibly diecast, corroded		4" L. x 2.25" W. x 2.25" H.		
51	MD 22-W				1	MISC	Ferrous Metal	Fastener	Buckle	Square frame and chape, possible clothing or animal tack, corroded		2" L. x 1.75" W.		
52	MD 23-W				1	MISC	Copper Alloy	Miscellaneous Metal	Strap	Fragment, one rounded finished end, perforated attachment holes spaced throughout length, (1) rivet attached, partially corroded		0.5" W.		
53	MD 24-W				1	MISC	Ferrous Metal	Fastener	Buckle	Rectangular frame, possible clothing or animal tack, corroded		2.3" L. x 1.25" W.		
54	MD 25-W				1	ARCH	Ferrous Metal	Nail	Cut or Wrought Nail	Head and shaft fragment, possible tack, heavily corroded	Pre-1893 (Nelson 1968; Wells 1998:92)			

Bag #	Context	Level	Depth*	Stratum	Ct.	Group	Artifact Material	Artifact Class	Artifact Type	Description	Dates	Measurements	Cortex	Wt. (g)
55	MD 26-W				1	ACT	Ferrous Metal	Horse Furniture	Horseshoe	Complete, (2) nail fragments attached, corroded		7" L. x 5.75" W.		
56	MD 27-W				2	TOOL	Ferrous Metal	Hand Tool	Shovel	Small spade/blade and partial handle fragments, heavily corroded				
57	MD 28-H				3	DRAIN	Ferrous Metal	Cast Iron	Drainage Pipe	Fragments, corroded		4.5" D.		
58	MD 29-H				1	DRAIN	Ferrous Metal	Cast Iron	Drainage Pipe	Fragment, corroded				
59	MD 30-H				1	ACT	Ferrous Metal	Horse Furniture	Horseshoe	Branch fragment, corroded				
60	SF 01-W				1	DOM	Ceramic	Buff-Bodied Stoneware	Hollowware	Body sherd, Albany slipped interior and exterior	1805-1920 (Miller et al 2000:10)			
Total 28-Bc-232 Artifacts:					326									

Key:

*decimalized feet below ground surface

Cortex Rank

ACT = activity	MD = metal detector -W = woods, -H = house	0 = No Cortex
ARCH = architectural	SF = surface find, -W = woods	1 = <50% Cortex
ARMS = armament	STP = shovel test pit	2 = >50% Cortex
BIO = biological		3 = 100% Cortex
CLO = clothing	cm = centimeter	
DOM = domestic	D = diameter	
DRAIN = drainage	g = grams	
FUEL = fuel	H = height	
HRDW = hardware	L = length	
LIGHT = lighting	Th = thickness	
MISC = miscellaneous	W = width	
PERS = personal		
PRE = pre-contact		
TOB = tobacco		
TOOL = tool		
TOY = toy		

APPENDIX F: INVENTORY OF NOT RETAINED ARTIFACTS

Bag #	Context	Level	Depth	Stratum	Description
	STP 02	1	0.00-0.35	O	White plastic wrapper
	STP 08	1	0.00-1.20	A	2 coal, 2 plastic
2	STP 11	1	0.00-0.80	A1	3 coal
12	STP 16	1	0.00-0.60	Fill	1 plastic, 1 foil, 3 brick, 4 coal
16	STP 22	2	0.40-1.30	Ab	5 brick, 2 coal
	STP 23	1	0.00-0.55	Fill 1	plastic straw
	STP 27	1	0.00-0.80	Fill 1	2 styrofoam, 1 plastic wrapper
	STP 28	1	0.00-1.00	Fill 1	1 can tab, 5 plastics
	STP 28	2	1.00-1.50	Fill 2	2 brick crumbs, 10 asphalt, 1 plastic
	STP 33	1	0.00-0.40	Fill 1	2 plastics
	STP 40	2	0.30-0.90	Ap	3 modern glass
	STP 47	1	0.00-0.90	Fill	1 modern bottle glass
	STP 48	1	0.00-1.20	Fill	3 asphalt, 1 coal, 1 modern glass
	STP 49	1	0.00-0.90	Fill	3 plastic, 1 aluminum can, 2 modern glass
23	STP 56	2	0.70-1.80	Fill 2	3 asphalt/slag
	STP 62	1	0.00-0.80	Ap	1 plastic bottle
	STP 65	1	0.00-0.40	O	2 polystyrene
	STP 73	2	0.40-1.20	Ap	1 plastic, 2 modern glass
	STP 74	1	0.00-0.40	O	2 modern vessel glass
	STP 75	2	0.60-1.00	Oa	5 plastic, 2 polystyrene, 1 modern vessel glass
	STP 80	1	0.00-0.50	Fill 1	1 plastic, 1 modern glass
	STP 80	2	0.50-1.10	Fill 2	2 plastic
	STP 81	1	0.00-1.20	Fill 1	2 plastic, 3 modern vessel glass
	STP 82	2	0.40-0.80	Fill 2	2 plastic, 1 polystyrene, 2 asphalt, 1 concrete, 2 coal ash
25	STP 82	3	0.80-2.40	Fill 3	50+ coal/coal ash
	STP J-3	1	0.00-0.40	Oa	2 plastic, 2 asphalt roof tiles
	STP J-4	1	0.00-0.20	Fill 1	2 plastic

Key:

*decimalized feet below ground surface

STP = shovel test pit, J- = judgmental

APPENDIX F: ARTIFACT CATALOG REFERENCES

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Sprague, Roderick

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Wells, Tom

1998 Nail Chronology: The Use of Technologically Derived Features. *Historical Archaeology* 32(2): 78-99.

**APPENDIX G: NEW JERSEY STATE MUSEUM SITE
REGISTRATION FORM**



NEW JERSEY STATE MUSEUM
ARCHAEOLOGICAL SITE REGISTRATION PROGRAM
BUREAU OF ARCHAEOLOGY AND ETHNOLOGY
P.O. BOX 530, TRENTON, N.J. 08625-0530
Phone (609) 292-8594; Fax (609) 292-7636

Site Name: John A.L. Zabriskie House

SITE #: 28-Be-232

☒ Check this box if you prefer to have this site information restricted to professional archaeologists, academics and environmental researchers conducting project background research. If so, this form will be considered donated information according to New Jersey State Law.

Date: November 17, 2023

NJ State Plane Coordinates:

USGS 7.5 Minute Series Quad.: Hackensack, NJ

State Plane Coordinates:

UTM Coordinates (required): E 576309 N 4537876

County: Bergen County

Township: Village of Ridgewood

Location (descriptive): Located at 460 West Saddle River Road, along the west side of West Saddle River Road and the east side of Route 17 (NJ 17).

Survey Methodology

Phase IA

Phase IB

Phase II

Phase III

Period of Site:

Historic – Late eighteenth to twentieth century;
Pre-Contact – Unknown period

Cultural Affiliation(s) (if known): European-American

Owner's (Tenant's) Name: Village of Ridgewood

Address: 131 North Maple Avenue, Ridgewood, NJ 07451

Phone: 201-670-5500

Attitude Toward Preservation:

Surface Features:

Extant Dutch-American wood frame house; stone well; landscaping features consisting of plantings, wooden fencing, and stone; soil, debris, and mulch piles in the surrounding wooded areas.

Prominent Landmarks:

Circa-1825 John A. L. Zabriskie House

Vegetation Cover:

Manicured lawn; wooded

Nearest Water Source: Saddle River

Distance: 1,100 feet

Soil Type: Dunellen-Urban Land Complex

Erosion: None observed

Stratified (if known):

Threat of Destruction (if known): Proposed athletic fields

Previous Work and References (list below):

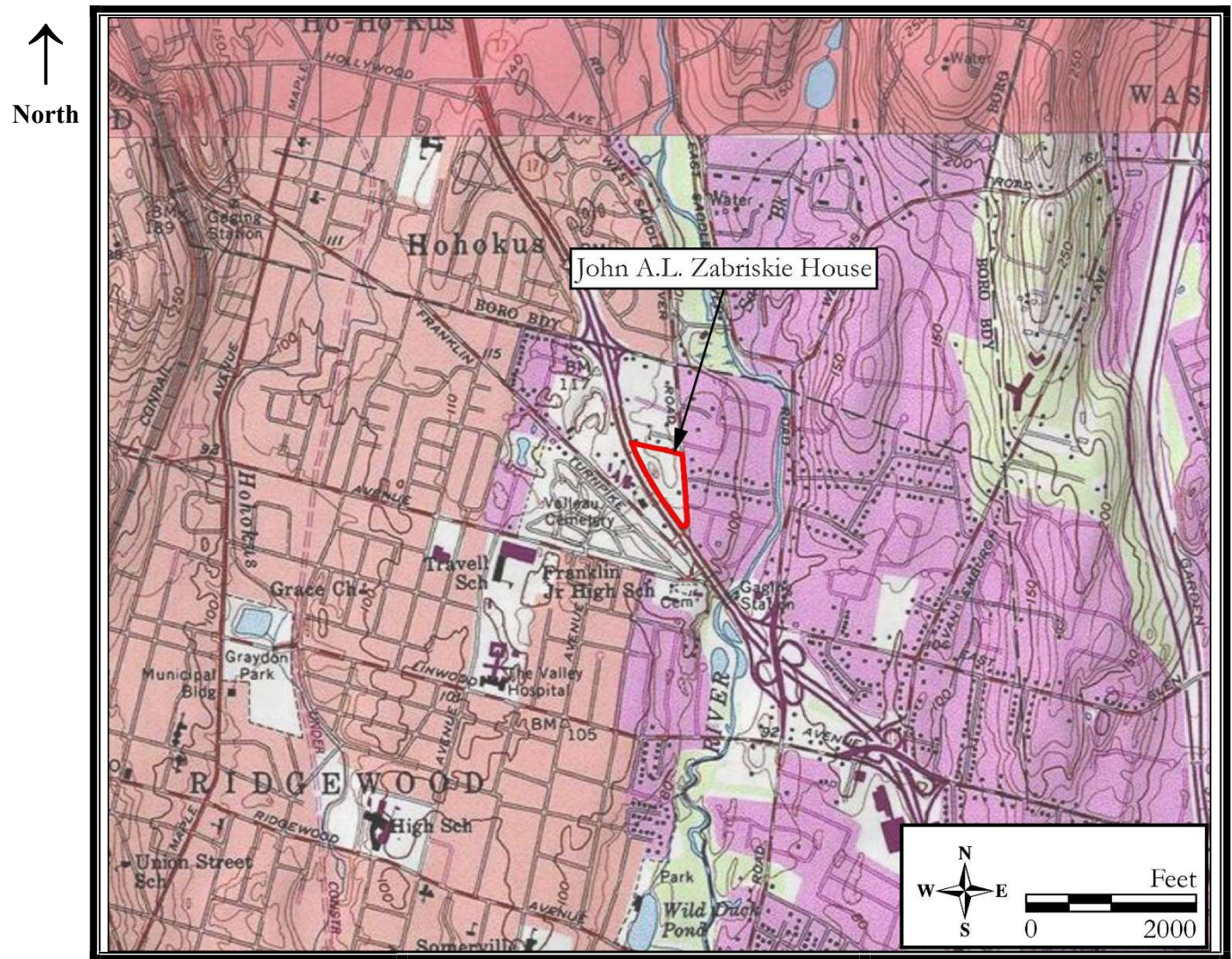
Name	Date	Reference (n/a if unpublished)
1. Hunter Research, Inc.	2019	Phase IA Archaeological Assessment, Zabriskie-Schedler House and Property, Village of Ridgewood, Bergen County, New Jersey.
2. Connolly & Hickey Historical Architects, LLC	2019	John A. L. Zabriskie House, National Register of Historic Place Registration Form

Collections:

Name	Date	Collection Stored	Previous Designation
1. Richard Grubb & Associates, Inc.	2023	259 Prospect Plains Road, Building D, Cranbury, NJ 08512	

Sketch Map of the Site:

Indicate the chief topological features, such as streams, swamps, shorelines, and elevations (approximate). Also show buildings and roads. Indicate the site location by enclosing the site area with a dotted line. Use a scale (approximate) to indicate distance and dimensions.



Observations, Remarks, or Recommendations:

The John A. L. Zabriskie House site is a 6.9-acre area (301,228-square-foot area) situated along the west side of West Saddle River Road and the along the east side of New Jersey Route 17. The extant circa-1825 John A. L. Zabriskie House stands along the eastern edge of the site boundary. The northern and southernmost portions of the site are currently wooded, and the area surrounding the extant house is covered by grass lawn. Recent grading and earthen berm construction has taken place along the site's western boundary, and limited areas of utility-related ground disturbance is evident near the extant house. The John A. L. Zabriskie House (Zabriskie-Schedler House) historic property is listed in the in the New Jersey Register and National Register of Historic Places (COE: 5/2/2014; SR: 8/13/2019; NR: 11/21/2019). The house and property has a period of significance from circa 1825 to circa 1924.

The site contains a historic period component associated with the standing wood frame house; and a minor pre-Contact component of unknown period and type. The excavation of 95 shovel test pits and a metal detection survey within the site resulted in the recovery of 326 artifacts, of which 2 are pre-Contact artifacts and the remaining 324 historic. The pre-Contact assemblage consists of two chert flakes recovered from a buried ground surface and the subsoil of the same shovel test pit. Additional bracket tests were negative for pre-Contact material.

The historic artifact assemblage is primarily composed of domestic-related items (n=114; 40.6%) and architectural material (n=76; 24.1%). Historic artifacts include ammunition, bone, shell, coal and coal ash, slag, horse furniture, metal fragments and hardware, wire nails, cut or wrought nails, terracotta flowerpot fragments, a metal toy wagon, vitrified clay drain pipe fragments, buttons, metal buckles, a pocket watch, a clay tobacco pipestem, window glass, brick, architectural stone, vessel glass, glass lamp chimney, and a variety of ceramic types (whiteware, redware, stoneware, creamware, pearlware, and refined earthenware). Diagnostic items possess manufacturing dates spanning from the mid-eighteenth to twentieth centuries, and include creamware (1762–1820), dipped/dipt refined earthenware (1770–1830), pearlware (1775–1830), slip-trailed redware (circa 1770s–1815), a redware pan or charger fragment (pre-1870), transfer-printed refined earthenware (1803–1903), Albany slip stoneware (1805–1920), whiteware (1815–present), mold blown vessel glass (1850–1895), glass jar lids (1880–mid-20th c.), cut or wrought nails (pre-1893), snuffle horse bit (1826–1955), decorated porcelaneous ceramics (1835–present), a Prosser button (1840–1960), a shotgun shell (1892–1896), asphalt (1871–present), safety glass (1892–present), and wire nails (1879–present). Shovel test pits with a higher density of artifacts dating to the eighteenth and nineteenth centuries were located proximate to the house.

Recorder's Name (Company): Nicole Herzog (Richard Grubb & Associates, Inc.)
Address: 259 Prospect Plains Road, Cranbury, NJ 08512
Phone: 609-655-0692
Date Recorder at Site: October 23, 2023

Revised 2007

APPENDIX H: CORRESPONDENCE LOG

Personal Communication Log

Date: October 19, 2023

Project No./Name: 2023-249 Zabriskie-Schedler House

Staff Name: Nicole Herzog

Contact: Jovan Mehandzic

Contact Organization: Village of Ridgewood, Division of Engineering

Contact Phone No.: (201)670-5500 ext. 2235

At the project location on 10/19/2023, Village of Ridgewood engineer, Jovan Mehandzic, communicated to the RGA field crew that an unknown person was previously observed metal detecting within the northern, wooded portion of the property. Limited areas of ground disturbance were also observed by engineering staff in this portion of the property following the departure of the unknown individual. RGA staff was not able to identify any areas of ground disturbance that may have been caused by prior metal-detecting activities.

APPENDIX I: ANNOTATED BIBLIOGRAPHY

Author: Nicole Herzog, MA, RPA
Title: Phase IB Archaeological Survey, John A. L. Zabriskie (Zabriskie-Schedler)
House and Property, Village of Ridgewood, Bergen County, New Jersey
Date: December 2023
RGA Project No.: 2023-249
RGA Database Title: Zabriskie-Schedler House
State: New Jersey
County: Bergen
Municipality: Village of Ridgewood
Drainage Basin: Saddle River, Passaic River, Newark Bay, Arthur Kill and Kull Van Kill,
Atlantic Ocean
USGS Quad: Hackensack, NJ
Regulation: New Jersey Register of Historic Places Act (N.J.A.C. 7:4)
Project Type: Government: Parks and Recreation
Project Sponsor: Village of Ridgewood
Client: Village of Ridgewood
Level of Survey: Phase IB archaeological Survey
Cultural Resources: John A. L. Zabriskie House (COE: 5/2/2014; SR: 8/13/2019; NR:
11/21/2019); site 28-Be-232



Ross H. Komura, LLA, ASLA

From: peter primavera <petera.primavera@gmail.com>
Sent: Friday, February 9, 2024 7:26 AM
To: Ross H. Komura, LLA, ASLA
Subject: Fwd: HPO Project No. 20-0608; John A.L. Zabriskie House Archaeological Site (28-Be-232)
Attachments: image002.jpg; 2023 249 Figure 4.1 Field Results.pdf

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This email an attached map will be added after the RGA report

peter a primavera
peter primavera partners, llc

908.499.2116
908.738.1027

po box 2938 westfield, nj, 07090

nyc
phila

----- Forwarded message -----

From: Paul McEachen <pjmceachen@rgaincorporated.com>
Date: Thu, Feb 8, 2024, 6:19 PM
Subject: RE: HPO Project No. 20-0608; John A.L. Zabriskie House Archaeological Site (28-Be-232)
To: Maresca, Vincent [DEP] <Vincent.Maresca@dep.nj.gov>
Cc: Nicole Herzog <NHerzog@rgaincorporated.com>, peter primavera <petera.primavera@gmail.com>, Keith Kazmark <kkazmark@ridgewoodnj.net>, Chris Rutishauser <crutishauser@ridgewoodnj.net>, Stephanie Grubb <sgrubb@rgaincorporated.com>, Richard Grubb <rgrubb@rgaincorporated.com>, Baratta, Meghan [DEP] <Meghan.Baratta@dep.nj.gov>, Leynes, Jennifer [DEP] <Jennifer.Leynes@dep.nj.gov>, Marcopul, Kate [DEP] <Kate.Marcopul@dep.nj.gov>, egold@co.bergen.nj.us <egold@co.bergen.nj.us>, museum@ridgewoodhistoricalsociety.org <museum@ridgewoodhistoricalsociety.org>, jwondergem@ridgewoodnj.net <jwondergem@ridgewoodnj.net>, Meagan Ratini <MRatini@rgaincorporated.com>

Hi Vinny,

Thank you for the review correspondence in association with the Phase IB archaeological survey report and Phase II work plan for the Zabriskie-Schedler House.

Last fall, we completed a Phase IB archaeological survey and identified the John A.L. Zabriskie House Archaeological Site (28-Be-232) within the block and lots that include the Zabriskie-Schedler House. Two core areas within the site were

identified that were specified for further survey. In response to your correspondence, we have provided the following information to help assist in your review.

We submitted our Phase IB survey report and Phase II work plan in late December 2023 for NJHPO review. We appreciate that you provided us the 2023 archaeological monitoring report on January 8th, 2024. We were not aware of the monitoring that had taken place intermittently from January 2022 through May 2023, or that a monitoring report had been prepared and submitted to NJHPO for review. We considered the results and recommendations detailed in the monitoring report. Nothing was identified that would result in a modification to the Phase IB survey results. For record keeping, we would like to have a copy of the review correspondence for the monitoring report, if available.

We have provided some text and a graphic (see Attached Figure) that addresses the Phase IB survey coverage.

Phase IB archaeological testing was not performed within a limited area north/northwest of the Zabriskie-Schedler House with obvious surficial disturbance. We have closely reviewed the 2023 monitoring report and especially the stratigraphy observed and overall results of Trench 2201. The 2023 monitoring report indicated that this area was initially proposed for archaeological testing in January 2022 in advance of the installation of a 250 linear foot water line. As documented in the monitoring report: "Upon arrival, it was apparent that approximately 1 to 4 feet of grading fill had been added to the central portion of the project site that covered the entirety of the area of the proposed water line (Photograph B.1). This fill had been placed on the property as part of ongoing work along the edges of N.J. Route 17, which runs along the western border of the property. The presence of the compacted fill made shovel testing unfeasible." (Hunter Research 2023: 2-3). Archaeological monitoring was then undertaken during water line installation and called "Trench 2201". The trench was 3-4 feet wide and excavated 3-5 feet in depth. Three representative profiles were provided for Trench 2201. Two profiles documented a buried A-horizon under fill deposits and third profile documented grading with fills directly overlaying the C-horizon. The disturbed profile was in the middle section of the trench and extended for at least 20-feet. The full extent of the disturbance observed in the trench was not clearly indicated in the monitoring report. Notably, no features or structural remains (i.e. foundations) were reported and: "No artifacts were recovered from the excavation of Trench 2201." In the Conclusions and Recommendations, Hunter (2023: 5) then indicated: "Archaeological monitoring conducted in connection with three utility improvement projects (water, electric and sewage) conducted at the Zabriskie-Schedler House did not identify any new or significant archaeological resources." The archaeological monitoring over a 4-foot by 250-foot area in Trench 2201 represents 1,000 square feet of monitored excavations by professional archaeologists (see Hunter Research 2023: Figure A.3 and Attached Figure).

Trench 2201 falls between RGA's Phase IB testing transects that are separated by approximately 96 feet (between testing lines including STPs 24-28 and STPs 18-23). No archaeological resources were documented during observational monitoring over a 1,000 square foot area between these transects. The archaeological monitoring work has sufficiently covered the area between the transects. Note the lack of artifacts and features in Trench 2201. The collected historic artifacts from secondary contexts in Trenches 2202 and 2301 in what we identified as Site Core 1 was noted. No data was provided that would suggest the need to alter the site cores.

We have overlaid the metal detection survey limits on the Phase IB plan map (see attached Figure) for consideration. The metal detection work was performed within areas where ground surface conditions and limited vegetation permitted survey. Areas containing debris, felled trees, push piles, a large mulch pile and/or increased understory were

not metal detected. Dense vegetation and other obstacles prevent the swinging of a metal detector. The monitoring report documented the presence of fill exceeding 1-foot thick in the central area. Surficial disturbances like the earth moving or secondary deposition with at least a foot or more of soil displacement renders metal detector survey ineffective since natural soils would not be reached.

There was considerable disturbance from the installation of the large earthen berm along Route 17 and the water line within the property (see Hunter Research 2019: Figure 6.1). The water line monitored by Hunter has been installed in the center of the project area (see Figure). It was flagged during the One Call utility markout completed prior to the Phase IB survey. The disturbance in places observed during the archaeological monitoring and Phase IB surveys is reflective of past activity on this property and is typical of a long-occupied (likely 200+ years) historic farmstead where both intact and disturbed contexts would be expected.

The Phase IB archaeological survey represents a good faith effort to identify archaeological resources within the full limits of disturbance. Several field methods (i.e. GPR Survey, STP excavation and metal detector survey) were used in the site identification process, and the survey was productive. A multi-component archaeological site that potentially contributes to the National and State Register listed Zabriskie-Schedler House was identified and registered as a result, and two areas identified for further archaeological consideration.

This additional information was provided as requested to complete the Phase IB archaeological survey process. We respectfully request that NJHPO make an informed recommendation to the Village.

We look forward to further consulting with the NJHPO on the Phase II work plan on behalf of the Village of Ridgewood.

Best regards,

Paul

Paul J. McEachen, MA, RPA

Director/Principal Senior Archaeologist



Richard Grubb & Associates, Inc.

259 Prospect Plains Road, Building D | Cranbury, New Jersey 08512

P. 609-655-0692 x 309 | pjmceachen@rgaincorporated.com

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From: Maresca, Vincent [DEP] <Vincent.Maresca@dep.nj.gov>

Sent: Thursday, February 01, 2024 4:10 PM

To: Paul McEachen <pjmceachen@rgaincorporated.com>

Cc: Baratta, Meghan [DEP] <Meghan.Baratta@dep.nj.gov>; Leynes, Jennifer [DEP] <Jennifer.Leynes@dep.nj.gov>; Marcopul, Kate [DEP] <Kate.Marcopul@dep.nj.gov>; Keith Kazmark <kkazmark@ridgewoodnj.net>; Gold, Elaine <egold@co.bergen.nj.us>; museum@ridgewoodhistoricalsociety.org; jwondergem@ridgewoodnj.net

Subject: HPO Project No. 20-0608; John A.L. Zabriskie House Archaeological Site (28-Be-232)

****This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office****

HPO Project No. 20-0608-20

HPO-B2024-008

Bergen County, Village of Ridgewood

John A.L. Zabriskie House (SR 8/14/2019; NR 11/22/2019)

John A.L. Zabriskie House Archaeological Site (28-Be-232)

Phase IB Archaeological Survey

Phase II Archaeological Survey Work Plan

Technical Assistance Comment

Dear Mr. McEachen,

Thank you for providing the Historic Preservation Office (HPO) with the opportunity for review and comment on the potential for the above-referenced project to affect historic and archaeological resources. These technical assistance comments are in response to the following archaeological survey and work plan submitted to the HPO for review and comment on December 27, 2023, in anticipation of project review pursuant to the New Jersey Register of Historic Places Act:

Herzog, Nicole

December 8, 2023 *Phase IB Archaeological Survey, John A.L. Zabriskie (Zabriskie-Schedler) House and Property, Village of Ridgewood, Bergen County, New Jersey.* Prepared for the Village of Ridgewood. Prepared by Richard Grubb and Associates Inc. (RGA), Cranbury, New Jersey.

and

McEachen, Paul

December 22, 2023 *Work Plan, Phase II Archaeological Survey, John A.L. Zabriskie House Site (28-Be-232), Village of Ridgewood, Bergen County, New Jersey.* Prepared by Richard Grubb and Associates Inc., Cranbury, New Jersey.

The reports state the project involves the installation of recreational facilities on the property by the Village of Ridgewood (Phase IB report, Figures 1.4 and 1.5).

Phase IB Archaeological Survey

The Phase IB archaeological survey report states that the identification level survey included shovel test pits (STP), ground-penetrating radar (GPR), and a metal detecting survey “within visibly undisturbed portions” of the project’s area of potential effects (APE). The subsurface survey comprised 81 STPs with 14 additional close interval radial STPs which identified intact and capped fill over intact soil profiles while recovering two pre-Contact period lithic artifacts (waste flakes) and 324 eighteenth through twentieth century domestic and architecturally-related artifacts. The three features that were documented include two stone rings (Features 1 and 2) or possible shaft features, and a subsurface stone paving and curb for a possible 20th century patio (Feature 3). The GPR survey identified two potentially significant archaeological subsurface anomalies near the extant 1825 dwelling including a possible sheet midden (A1) and a probable shaft feature (A3) (Appendix A, geophysical report [Figure 4-1]). The report states that the metal detecting survey failed to identify any clear evidence for Revolutionary War period artifacts. The report also notes the presence of a metal detectorist on the property prior to the formal Phase IB survey.

In summary, the report states that the Phase IB identification level archaeological survey identified the potentially contributing, multi-component John A.L. Zabriskie House Archaeological Site (28-Be-232) in two generally discrete loci encompassing the existing 1825 dwelling and known outbuilding areas (Figure 4.1). The remaining portions of the tested APE were characterized as containing non-significant “broadcast historic material”.

Upon review, the HPO concurs with the report finding that the potentially contributing multi-component John A.L. Zabriskie House Archaeological Site (28-Be-232) is present within the proposed park development APE. However, the HPO cannot concur with site limits based on the survey effort to date (see below). In addition, the HPO concurs with the Phase II Work Plan that the recovered material culture and subsurface anomalies hint at the presence of a possible precursor occupation to the extant 1825 dwelling.

The report states Phase IB archaeological survey was not conducted in areas of visible ground disturbance. While no disturbance boundary was defined, it appears to be the unvegetated portions in Figure 1.3 and the untested areas in Figure 4.1. Please be aware, a 2023 archaeological monitoring report for utility work on the property was provided to RGA which was conducted within the “visibly disturbed” areas which did identify intact stratigraphy encapsulated below the fill event within portions of the untested section of the APE. Therefore, it is not possible for the HPO to concur with the report findings and identified archaeological site limits at this time as not all areas within the project site limits have yet to be tested at the Phase IB level.

In addition, the limits of the metal detecting survey are only verbally defined as the undisturbed portions of the grass lawn surrounding the John A. L. Zabriskie House and an approximate 3.9-acre wooded area to the north of the house. The limits of the metal detecting survey shall be identified in report graphs, such as Figure 4.1, for the HPO to understand where

survey was conducted, concur with the report findings, and make informed recommendations to the Village regarding the entire project APE.

Phase II Archaeological Survey Work Plan

The above referenced Phase II archaeological survey work plan provides a research design, research questions, and field methodology for evaluating the multi-component John A.L. Zabriskie House Archaeological Site (28-Be-232), as understood in RGA's current Phase IB report, for inclusion in the New Jersey and National Registers of Historic Places under Criterion D significance.

Upon review, until a technically complete Phase IB survey of the entire project APE is presented, the HPO cannot concur with the recommendations of the Phase II work plan as currently presented. Some things that HPO staff did note while reviewing the Phase II work plan is that the recommended Phase II survey effort percentage appears to be deficient for answering the research questions for the project site as currently presented in the work plan. In addition, any Phase II work plan shall include additional analysis of the recovered pre-Contact period waste chert flakes to understand if the material is related to any eighteenth century French and/or British gun flint production, maintenance, and/or wastage activities.

Additional Comments

This information is provided as informal notes to you and does not constitute identification level cultural resources survey under Section 106 of the National Historic Preservation Act or other law or regulation. These notes do not constitute project review under any state or federal law. The absence of previously identified cultural resources does not imply that there are no eligible historic properties in the requested area.

It is the HPO's understanding through a 1/8/2024 email with Keith Kazmark, Village of Ridgewood, that an application for project authorization pursuant to the New Jersey Register of Historic Places Act is anticipated to be provided to the HPO by the end of January 2024. The technically complete application will be necessary for HPO review and approval prior to the completion of the planned Phase II archaeological survey field effort.

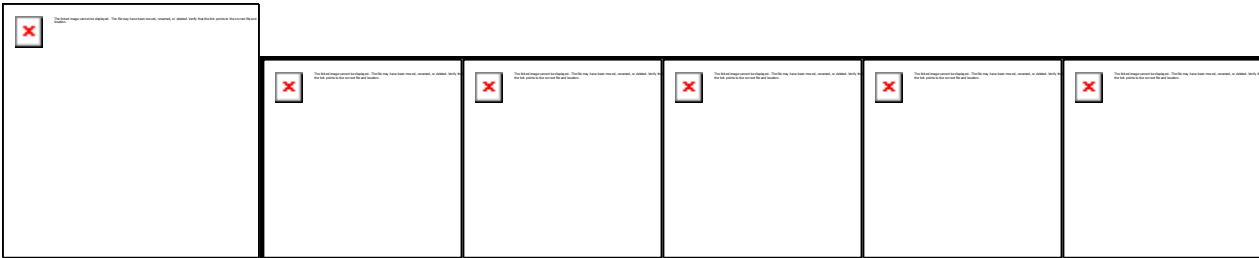
Thank you again for providing this opportunity for review and comment on the potential for this project to affect historic and archaeological resources. Please reference the **HPO project number 20-0608** in any future calls, emails, or written correspondence in order to expedite our review and response. Please do not hesitate to contact me at Vincent.Maresca@dep.nj.gov with questions regarding archaeology or **Jennifer Leynes** of our staff at Jennifer.Leynes@dep.nj.gov with questions regarding historic architecture or landscapes. Thank you for your cooperation with this review.

Sincerely,

Vincent Maresca, M.A. | Program Specialist 3 | Historic Preservation Office

Department of Environmental Protection | Mail Code 501-04B | PO Box 420 | Trenton, NJ 08625-0420

P: (609) 633-2395 | F: (609) 984-0578 | vincent.maresca@dep.nj.gov | Website: <http://www.nj.gov/dep/hpo>



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RICHARD GRUBB & ASSOCIATES
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December 22, 2023

Katherine Marcopul, PhD
New Jersey Historic Preservation Office
New Jersey Department of Environmental Protection
501 East State Street, 4th Floor
5 Station Plaza
Trenton, New Jersey 08625

Re: Work Plan, Phase II Archaeological Survey, John A.L. Zabriskie House Site (28-Be-232) Village of Ridgewood, Bergen County, New Jersey (HPO Project # 20-0608)

Dear Dr. Marcopul:

On behalf of the Village of Ridgewood, Richard Grubb & Associates, Inc. (RGA) is pleased to submit this work plan for a Phase II archaeological survey on the John A.L. Zabriskie House property at 460 West Saddle River Road (Block 4704, Lots 9, 10, 11 and 12) in the Village of Ridgewood, Bergen County. The proposed project will include the installation of recreational facilities on the approximately 7-acre property situated between West Saddle River Road to the east and NJ Route 17 to the west. The property, previously identified as the John A.L. Zabriskie House (Zabriskie-Schedler House), is listed in the New Jersey (NJR) and National Registers (NRHP) of Historic Places (COE: 5/2/2014; SR: 8/13/2019; NR: 11/21/2019). The circa 1825 John A.L. Zabriskie House is located on the property and has been rehabilitated and stabilized. The John A.L. Zabriskie House is listed under NR Criterion C and the period of significance extends from 1825 to 1924.

As this project is sponsored by the Village of Ridgewood and is located within the NJRHP-listed John A.L. Zabriskie House property, an Application for Project Authorization (APA) must be prepared in accordance with the New Jersey Register of Historic Places Act (N.J.A.C. 7:4; Laws of 1970, Chapter 268). The archaeological work will be performed in support of the NJRHP requirements. The New Jersey Historic Preservation Office (NJHPO) will perform project review. In 2018 and 2019, Hunter Research Inc. completed a Phase IA archaeological survey and assessed the project area as sensitive for Revolutionary War period and nineteenth-century archaeological resources. A Phase IB archaeological survey was recommended for the project area. In 2023, RGA performed a Phase IB archaeological survey that included background research, documentation of existing conditions, a metal detection survey, geophysical survey, and subsurface testing within visibly undisturbed portions of the APE. Eighty-one (81) shovel test pits (STPs) were excavated on a 50-foot-interval grid, in addition to fourteen (14) bracket or judgmental STPs. Three hundred and twenty-four (324) historic period artifacts and two (2) pre-Contact period artifacts were recovered from twenty-two (22) STPs and thirty-one (31) metal detection or surface find spots. One multi-component archaeological site was identified, the John A.L. Zabriskie House Site (28-Be-232) (Figure 1). The Phase IB archaeological survey report was submitted to the NJHPO separately on December 22, 2023.

Site Summary

The John A.L. Zabriskie House Site (28-Be-232) is a concentration of historic and pre-Contact material recovered from within NJR- and NRHP-listed John A.L. Zabriskie House historic property. Block 4704, Lots 9, 10, 11 and 12 are considered part of the archaeological site. As a result of the Phase IB archaeological survey, two core

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portions of site 28-Be-232 are considered to have the potential to yield archaeological resources that contribute to the historic property (see Figure 1). The first core area of the site, Site Core 1, consists of approximately 16,322 square feet (0.37 acres) surrounding (and including) the extant house (Figure 2). The shovel test pits within Site Core 1 yielded a total of 197 historic artifacts, dating predominantly to the eighteenth and nineteenth centuries, and 2 pre-Contact artifacts. A second area, Site Core 2, measures approximately 100 by 150-foot (15,000 square feet; 0.34 acres) and encompasses recovered architectural material that corresponds roughly with the map-documented location of one or more nineteenth-century outbuildings (Figure 3). A piece of Albany slip stoneware (1805-1920) was also identified near Site Core 2.

Since the areas around the house and the former outbuildings cannot be avoided by the project, a Phase II site evaluation was recommended to determine if the John A.L. Zabriskie site (28-Be-232) is eligible for listing in the NJR and/or NRHP, or if the site contributes to the significance of the NJR- and NRHP-listed John A.L. Zabriskie House. Based on project plans, the 100 by 150-foot area falls within the proposed athletic field footprint and areas around the house are proposed for landscaping (i.e. trees) and improvements related to pedestrian use (i.e. sidewalks) (Figure 4). Based on the nature of the proposed project activities around the John A.L. Zabriskie House, RGA proposes a sampling strategy that focuses on the nature of the impacts. The house (approximately 2,120 square feet) is being retained, and was included as part of the total acreage for the core area around the house. For the other core area, a 1% sample is proposed. With the footprint of the John A.L. Zabriskie House omitted, the undisturbed portions of the two site core areas encompass a total 0.67 acres (29,202 square feet).

Phase II Archaeological Survey Work Plan

The purpose of this Phase II work plan is to present the research, archaeological fieldwork, artifact analysis, and reporting methodology for the Phase II archaeological survey at the site and to provide research questions that will guide the Phase II survey.

1. RESEARCH DESIGN

The purpose of the Phase II archaeological survey is to evaluate the eligibility of the John A.L. Zabriskie House Site (28-Be-232) for listing in the NJR and NRHP and address the research questions posed below. The NJR and NRHP eligibility evaluation will follow guidance set forth by the National Park Service (Little et al. 2000; National Park Service 1983, 1995). The National Register Bulletin “Guidelines for Evaluating and Registering Archaeological Properties” provides five analytical steps to evaluate an archaeological property under Criterion D (Little et al. 2000). In order for an archaeological property to be eligible for the NRHP under Criterion D, the Phase II investigation must demonstrate that it has yielded or may be likely to yield information important to prehistory or history. The five analytical steps include: 1) identifying the property’s data sets, 2) identifying appropriate historic contexts, 3) identifying important research questions, 4) considering archaeological integrity, and 5) identifying important information that the property has yielded or is likely to yield. The results of the Phase II survey will be presented in a report that meets the Secretary of the Interior’s *Standards and Guidelines for Archaeology and Historic Preservation* (1983) and complies with the archaeological survey and reporting guidelines of the NJHPO set forth in N.J.A.C. 7:4-8.4 through 8.5 (Requirements for Archaeological Reports – Standards for Report Sufficiency). The project archaeologist will meet the Secretary of the Interior’s Professional Qualifications Standards for Archaeology (36 CFR Part 61).

2. SCOPE OF WORK: John A.L. Zabriskie House Site (28-Be-232)

The Phase II survey site-specific research questions, supplemental background research, and fieldwork effort is outlined below.

Research Questions

An attempt will be made to address each of the following research questions for the John A.L. Zabriskie House Site (28-Be-232), the ability of which to do so will be based on the type and integrity of the archaeological deposits encountered:

- What is the temporal range of the archaeological deposits from the site?
- Are additional pre-Contact artifacts present? If so, what do they indicate regarding chronology and site type or function?
- Does the site have integrity of cultural deposits? Are any intact pre-Contact or historic archaeological features present that shed light on site function and spatial site use? Are additional buried cultural features present? Are midden or shaft features present?
- Do the John A.L. Zabriskie site cores (Site Core 1 and Site Core 2) represent domestic occupation or activity spaces, refuse disposal areas, or secondary deposits of scattered material resulting from soil displacement and/or agricultural fertilization activities?
- Do archaeological deposits at the site retain integrity and are they temporally and spatially discrete enough to provide insight into the site inhabitants' or potential inhabitants' cultural and consumer behavior, ethnicity, diet, religion, and daily lives?
- Land records document the earliest landowners as Peter Fauconnier (circa 1710–1730) and Magdalene Valleau (1730–1750), after which the property was transferred to the Paramus Dutch Reformed Church. It is not known whether the extant house existed on the property prior to the purchase of the land by John A.L. Zabriskie from the church in 1825. Are there any intact and discrete eighteenth century features or artifact deposits that correspond with an earlier (pre-1825) occupation of the site?
- Is site 28-Be-232 individually eligible for listing in the NRHP and NJR under Criterion D? Does the site contribute to the significance of the John A.L. Zabriskie House historic property?

Background Research

Background research presented in the Phase IB archaeological survey report will be expanded upon to further explore the potential for earlier site occupation (i.e. pre-1825), and to develop a more refined, site-specific historic context for the purposes of interpreting archaeological deposits and evaluating site significance. This research will include a review of existing deed and title research, examination of church records related to earlier ownership, eighteenth to early nineteenth-century tax records and census lists for the property, tenancy records, and other primary source records. Potential research repositories include the Bolger Heritage Center at the Ridgewood Public Library, the Bergen County Archives, the Old Paramus Reformed Church, and the New Jersey State Archives.

Archaeological Fieldwork

Evaluation-level (i.e., Phase II) fieldwork methods will be completed within the two site locations and will include:

- Completion of a One-Call utility mark out request will be conducted prior to fieldwork commencement.

- Subsurface testing to include the hand excavation of shovel test pits (STPs) plotted at 25-foot intervals or judgmentally to supplement the Phase IB survey grid and help further sample the two core areas. This work will allow a better understanding of the artifact distribution patterns and aid in excavation unit placement. The STPs will measure 0.5 meters by 0.5 meters (each 2.69 square feet). A total of five STPs (13.5 square feet) is proposed for the core around the house and nineteen STPs (51 square feet) are proposed for the other core area. Stratigraphy encountered will be separately excavated and screened through ¼-inch wire mesh to facilitate artifact recovery. Soil profiles in each STP will be recorded and a log will be prepared. Recovered artifacts will be placed in resealable polyethylene bags with a tag that lists the appropriate provenience information.
- Following STP excavation, eight (8), five-foot square hand dug excavation units (EUs) (200 square feet) will be completed. Four (4) EUs will be placed in each core area. Stratigraphy in EUs to be excavated in natural levels or arbitrary levels within natural stratigraphy, as determined by the project archaeologist. The plowzone in the EUs will be excavated as a natural stratigraphic level. At least two (2) 0.25-foot thick arbitrary levels will be dug in the subsoil followed by an STP at the bottom of the EU to ensure that the base of cultural deposits has been reached. If pre-Contact period artifacts are found in the subsoil, the subsoil will be excavated in 0.25-foot thick arbitrary levels until artifact counts have significantly diminished. An STP will be dug at the bottom of each EU to ensure that the base of cultural deposits has been reached. All excavated soils in the EUs will be screened through ¼-inch wire mesh to facilitate artifact recovery. Retained artifacts will be placed in resealable polyethylene bags with an associated tag that lists the appropriate provenience information. All soils encountered will be documented. Excavation unit stratigraphic profiles will be recorded via digital photography and scaled line drawings and soil characteristics will be documented. All STPs and EUs will be plotted on a project excavation base map using a handheld GPS unit with sub-meter accuracy. All excavations will be hand dug and backfilled following completion. Combined with the Phase IB survey effort, the total excavated area will represent over a one percent sample of the core site areas (294.56 sf).
- Identified cultural features, if present, will be exposed within the confines of each EU and bisected along their long axis to enable profile documentation. Fifty (50%) percent of each cultural feature (measuring less than three feet in diameter) will be archaeologically sampled to facilitate feature profile exposure and the ability to define the feature's function and temporal association, if possible. Should foundation or structural remains be identified, the feature will be sampled within the EU(s). Shaft features will be sampled through the excavation of an EU, or will be bisected depending on size, to a depth of three feet. Excavation will then proceed via the placement of an STP for an additional two feet or until an impasse is encountered. Coordination with the NJHPO will be made to discuss an approach to further sampling such features, if necessary. Excavation of the capped shaft features will not be undertaken. However, it is anticipated that a possible shaft feature identified in the geophysical survey will be sampled. Excavated feature soils will be screened through ¼-inch wire mesh to facilitate artifact recovery. Exposed feature soil profiles will be documented via digital photography and scaled line drawings. Soil attributes will be recorded according to soil depth, texture and color on standardized forms.

3. ARTIFACT CATALOGUING/ANALYSIS

Artifact analysis includes, at a minimum, the completion of an inventory and research to determine the age and origin of materials found in archaeological contexts. This work will aid in addressing the above research questions and evaluating the NJR and NRHP eligibility of the site.

Recovered artifacts to be processed and cataloged. An artifact inventory will be produced. All historic and pre-Contact period artifacts will be retained from the John A.L. Zabriskie House Site (28-Be-232) with the exception of modern or highly represented historic artifact types (e.g., brick, window glass, coal, coal ash, slag, asphalt, concrete, post-mid-twentieth-century bottle glass, plastic, Styrofoam, rubber, and building stone), which will be counted in the field and sampled, depending on context.

Collected and retained artifacts will be removed to an off-site laboratory for processing. Processing will consist of cleaning, analysis, and cataloging at the RGA headquarters in Cranbury, New Jersey. Collected artifacts will be placed in clean re-sealable, polyethylene bags with an accompanying tag listing the appropriate provenience information. Artifact curation and specialized analysis, such as macrobotanical analysis and faunal analysis, will not be undertaken during the Phase II archaeological survey. Recovered artifacts determined not eligible for the NJR or NRHP will be offered to the Village of Ridgewood following NJHPO review of the survey report. Curation marking of artifacts will be undertaken during a Phase III archaeological data recovery if the NJHPO determines that archaeological data recovery is necessary.

4. PHASE II SURVEY REPORT

The results of the Phase II archaeological survey at the John A.L. Zabriskie House Site (28-Be-232) will be presented in a Phase II report for the proposed undertaking that meets the Secretary of the Interior's *Standards and Guidelines for Archaeology and Historic Preservation* (1983) and complies with the archaeological survey and reporting guidelines of the NJHPO set forth in N.J.A.C. 7:4-8.4 through 8.5 (Requirements for Archaeological Reports – Standards for Report Sufficiency), as well as the NJHPO-approved Phase II archaeological survey work plan. Preparation of a revised NJSM archaeological site registration form for the site will be completed. The significance of the John A.L. Zabriskie House Site (28-Be-232) will be evaluated based on the NJR and NRHP evaluation criteria and the above research questions. An assessment of whether the site contributes to the significance of the New Jersey Register listed resource (i.e. under National Register Criterion D) will be made. The Phase II archaeological survey report will include management recommendations on whether further archaeological survey (i.e., Phase III archaeological mitigation) or no further survey is warranted. The Phase II archaeological survey technical report will be submitted to the NJHPO for review and comment.

Please contact me at 609-366-7138 or via email at pjmceachen@rgaincorporated.com if you have any questions.

Sincerely,



Paul J. McEachen, M.A., RPA
Principal Senior Archaeologist

Attachments Enclosed

cc: Keith Kazmark, Village of Ridgewood
Peter Primavera, Peter Primavera Partners, LLC

References

Hunter Research, Inc.

2019 Phase IA Archaeological Assessment Zabriskie-Shedler [sic] House and Property, Village of Ridgewood, Bergen County, New Jersey. Report on file, New Jersey Historic Preservation Office.

Little, Barbara J., Erika Martin Seibert, Jan Townsend, John H. Sprinkle, Jr., and John Knoerl

2000 Guidelines for Evaluating and Registering Archaeological Properties, National Register Bulletin, U.S. Department of the Interior, National Park Service, National Register, History, and Education, Washington D.C.

National Park Service

1983 Archeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines [As Amended and Annotated], http://www.nps.gov/history/local-law/arch_stnds_0.htm, accessed January 2019.

1995 How to Apply the National Register Criteria for Evaluation. National Register Bulletin 15. National Park Service, Washington, DC.

Richard Grubb & Associates, Inc.

2023 Phase IB Archaeological Survey, John A. L. Zabriskie (Zabriskie-Schedler) House and Property, Village of Ridgewood, Bergen County, New Jersey. On file, Village of Ridgewood, Ridgewood, New Jersey.

ATTACHMENT 1: FIGURES

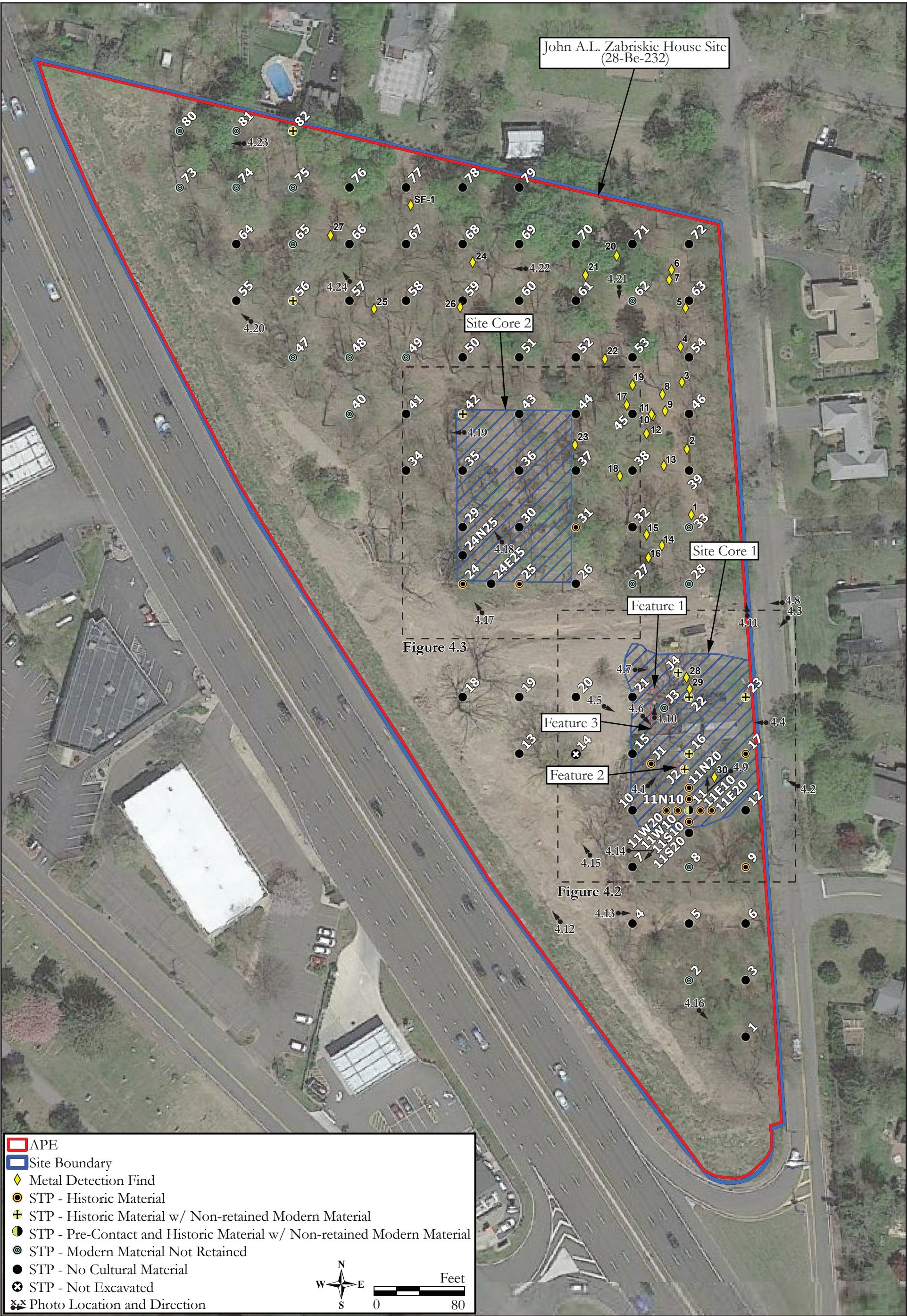




Figure 2: Inset map of Site Core 1 of the John A.L. Zabriskie site (28-Be-232).

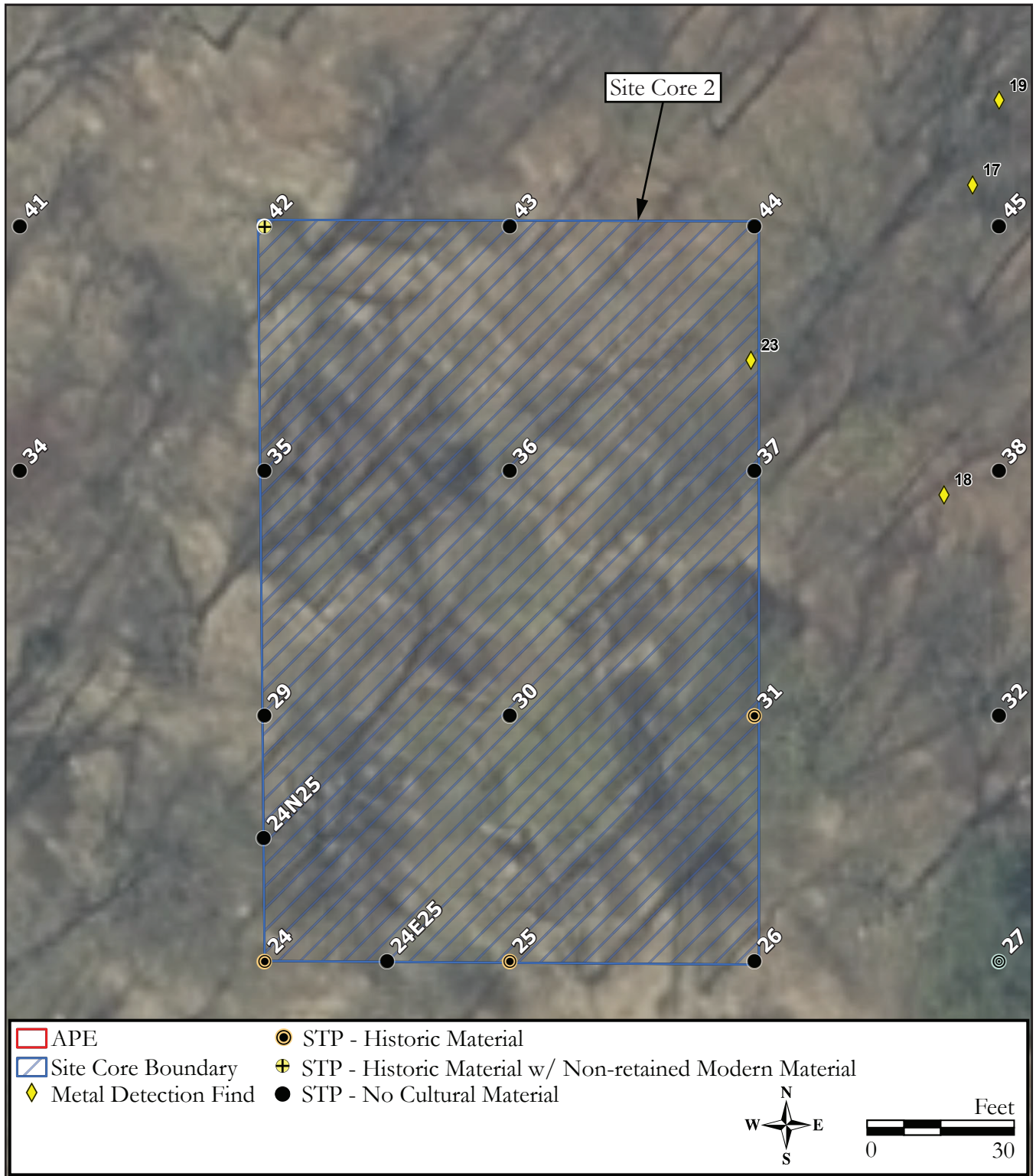


Figure 3: Inset map of Site Core 2 of the John A.L. Zabriskie site (28-Be-232).

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APPENDIX 12

Phase IA Archaeological Assessment Report
prepared by Hunter Research, dated February 2019

**PHASE IA ARCHAEOLOGICAL ASSESSMENT
ZABRISKIE-SHEDLER HOUSE AND PROPERTY
VILLAGE OF RIDGEWOOD, BERGEN COUNTY
NEW JERSEY**

Prepared for:

Connolly & Hickey Historical Architects

Prepared by:

**James Lee, M.A., RPA, Principal Archaeologist
Eryn Boyce, M.S., Architectural Historian**

FEBRUARY 2019

MANAGEMENT SUMMARY

This report describes the results of an archaeological assessment carried out over the winter of 2018-19 of the Zabriskie-Schedler House and property located at 460 West Saddle River Road in the Village of Ridgewood, Bergen County, New Jersey. This work was carried out by Hunter Research, Inc. under contract to Connolly & Hickey Historical Architects on behalf of the Village of Ridgewood. The primary goal of this assessment was to define areas of likely archaeological sensitivity within the property and to provide recommendations for archaeological resource management procedures in the event of alterations and modifications to the property that may entail ground disturbance. In particular, the potential for Revolutionary War-related archaeology on the property was assessed in light of the active part this area played in that conflict.

Although a review of previously identified precontact sites registered with the New Jersey State Museum identified 27 sites within two miles of the subject property, it is assessed as having a low potential to yield significant prehistoric archaeology. The subject property lies just over 1,000 feet from the Saddle River and is upland in character – with no prominent natural features, rock outcrops, or water sources.

Given the proximity of the Paramus Reformed Church and crossroads to the subject property, and that the property was apparently an undeveloped part of the church's land, it is considered likely that some of these wartime activities extended on to the Zabriskie-Schedler property. The first permanent historic occupation of the subject property is believed to have taken place *circa* 1825 when the first house was built. The relative lack of landscaping and ground disturbance observed immediately around the house suggests that there is a high potential that historic archaeological deposits related to the 200-year occupation of the Zabriskie-Schedler House may survive. There is also a moderate potential that remnants of the foundations of the outbuildings survive. An archaeological survey of the property is recommended if significant ground disturbance is planned.

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ACKNOWLEDGMENTS

We offer thanks to Margaret Hickey and Beth Bjorklund of Connolly & Hickey Historical Architects, who coordinated this archaeological assessment. Gregory Lattanzi, Registrar of the New Jersey State Museum, kindly assisted us in our research at the Museum. We also have appreciated the assistance of the staffs of the New Jersey Historic Preservation Office, the New Jersey State Museum and the New Jersey State Library.

With regard to Hunter Research staff involvement, the project was conducted by James Lee, Principal Archaeologist under the overall direction of Dr. Richard W. Hunter. Background research was carried out by Eryn Boyce. Archaeological fieldwork was performed by James Lee. Report graphics were produced by Evan Mydlowski. Graphic design work and report layout were completed by Patricia Madrigal. This report was written by Eryn Boyce, James Lee and Richard Hunter and edited and organized by Patricia Madrigal.

Chapter 1

INTRODUCTION

A. PROJECT BACKGROUND AND SCOPE-OF-WORK

The following report describes the results of an archaeological assessment carried out over the winter of 2018-19 of the Zabriskie-Schedler House and property located at 460 West Saddle River Road in the Village of Ridgewood, Bergen County, New Jersey (Figures 1.1 and 1.2). This work was carried out by Hunter Research, Inc. under contract to Connolly & Hickey Historical Architects on behalf of the Village of Ridgewood. The primary goal of this assessment was to define areas of likely archaeological sensitivity within the property and to provide recommendations for archaeological resource management procedures in the event of alterations and modifications to the property that may entail ground disturbance. In particular, the potential for Revolutionary War-related archaeology on the property was assessed in light of the active part this area played in that conflict.

The Zabriskie-Schedler House received a certificate of eligibility on May 1, 2014 and has since been nominated for listing in the National Register of Historic Places. The house is a well-preserved example of an early 19th-century Dutch-American wood-framed dwelling. It is situated on an approximately 7-acre parcel (Block 4704, Lots 9, 10, 11 and 12) between West Saddle River Road to the east and N.J. Route 17 to the west. The building comprises five principal sections: a small *circa* 1825 one-and-a-half story west section, a *circa* 1840 two-story east section, two small 20th-century one-story additions and a small 21st-century enclosed entry (Connolly

& Hickey Historical Architects, LLC 2018). Most of the property is wooded except for an overgrown lawn area around the house.

The archaeological assessment described here was performed as an adjunct to the preservation plan recently prepared for the house (Connolly & Hickey Historical Architects, LLC 2018) and aimed to provide an overall archaeological assessment of the property. All archaeological work was performed in conformance with the guidelines and standards of the New Jersey Historic Preservation Office. The scope-of-work for these investigations involved four main tasks: background research; field inspection; analysis of the results of research and fieldwork; and preparation of this report. Background research entailed a thorough review of the recently completed National Register nomination (Connolly & Hickey Historical Architects, LLC 2018) and of historic photographic and mapping information pertinent to the physical development of the property.

B. PREVIOUS RESEARCH AND PRINCIPAL SOURCES OF INFORMATION

The research for this report was largely derived from the National Register of Historic Places nomination form prepared by Connolly & Hickey Historical Architects, LLC (2018) and the nomination form prepared by Claire Tholl for the Paramus Reformed Church Historic District (located across N.J. Route 17 from the subject property) (1974). This was supplemented with several Revolutionary War-related publications. The most significant of

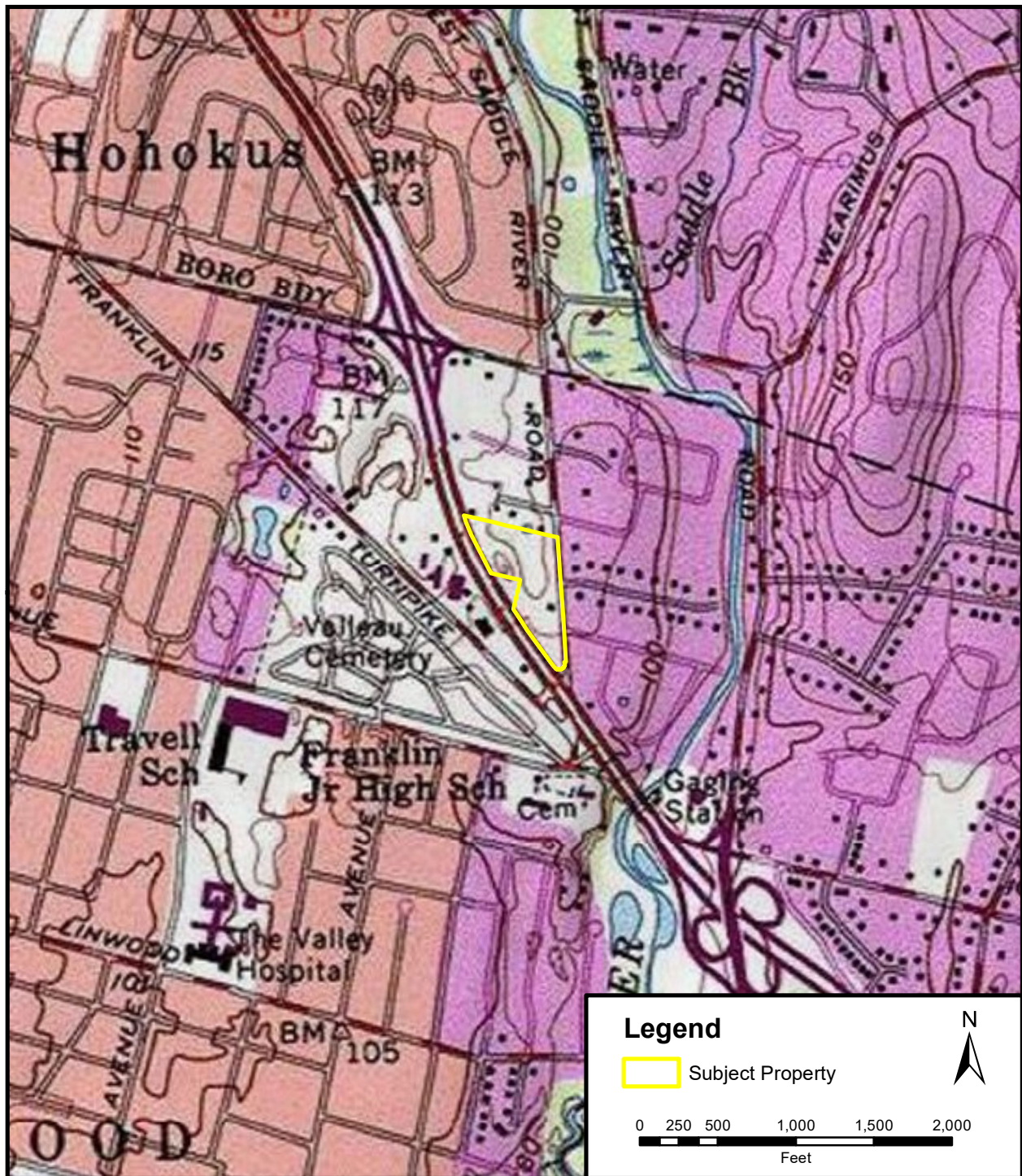


Figure 1.1. Location of the Zabriskie-Schedler House (outlined). Source: USGS 7.5' Topographic Series, Hackensack, N.J. Quadrangle (1955 [Photorevised 1970]).

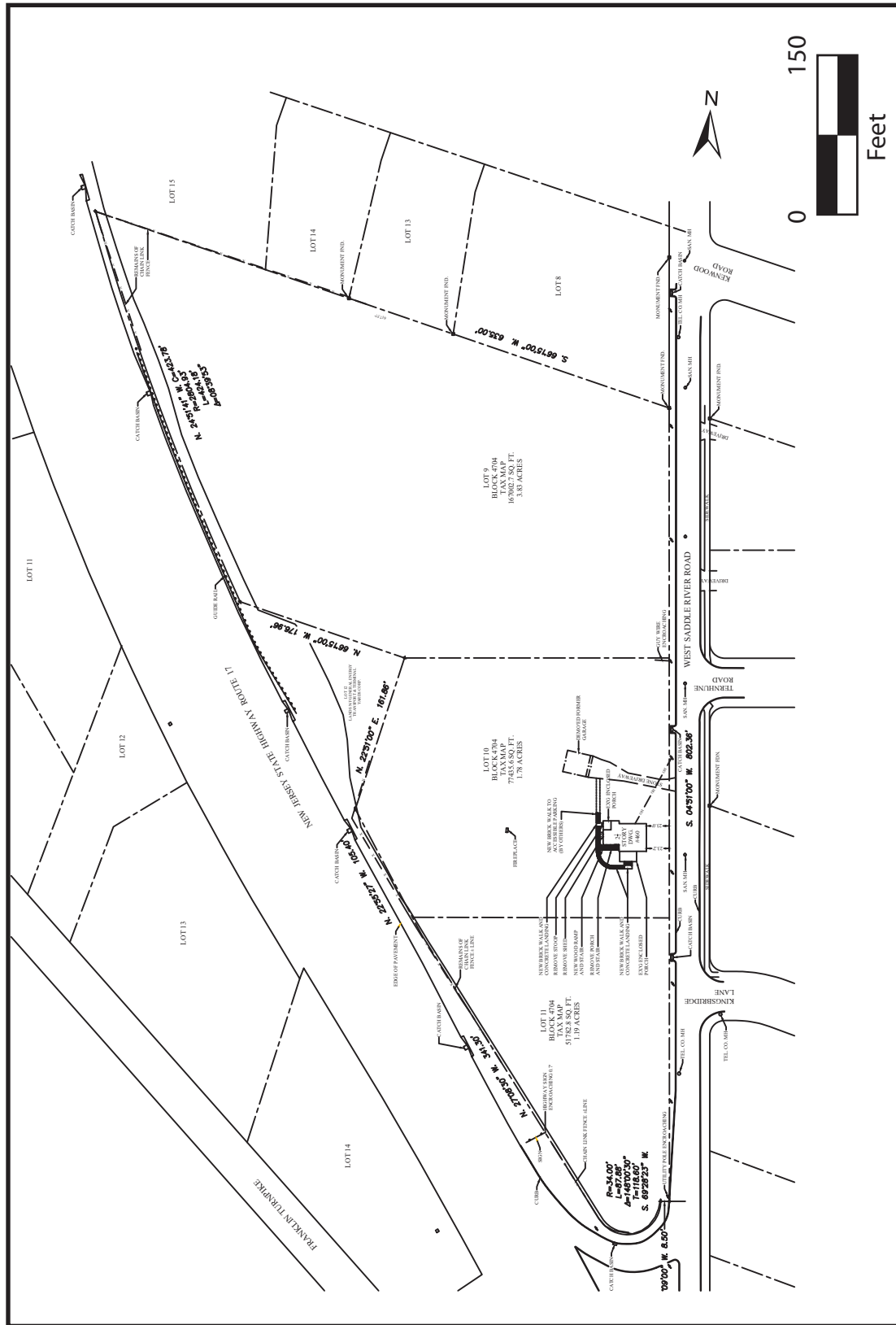


Figure 1.2. Site plan for Zabriskie-Schedler House Property showing current conditions. Source: Connolly & Hickey Historical Architects, LLC 2018.

these were David Munn's *Battles and Skirmishes of the American Revolution in New Jersey* (Munn 1976) and Dennis Ryan's *New Jersey in the American Revolution, 1763-1783: A Chronology* (Ryan 1975). The *Washington-Rocheambeau Revolutionary Route in the State of New Jersey, 1781-1783: An Historical and Architectural Survey* prepared by Robert A. Selig (2006) was also consulted. Volumes 2 and 3 provide information on individual identified resources, which include the Paramus Reformed Church. Another helpful source was the report from a cultural resource survey of the nearby section of N.J. Route 17 prepared in 1984 by Heritage Studies. Several 18th- through 20th-century historic maps of the area were also used: Bromley and Walter 1913, Gordon 1828 and 1833, Hills 1781, Hopkins 1861, Robinson 1902, U.S. Coast Survey 1840, Walker 1876, Walling 1863, and Watson 1812.

Chapter 2

GEOGRAPHICAL SETTING

A. PHYSIOGRAPHY, GEOLOGY AND SOILS

The subject property is located in the Northwestern Plateau of the Piedmont Lowland physiographic province of New Jersey (Figure 2.1). The Piedmont Lowland in this part of Bergen county is characterized by rugged, undulating, wooded hills which are generally aligned in a northeast-southwest direction. N.J. Route 17 runs from south southeast to north northwest along the western border of the property and West Saddle River Road runs south to north along the eastern edge of the property. The northern end of the property is bounded by a series of mid-20-century residential lots.

The subject property lies within the Saddle River drainage basin, which lies approximately 1,000 feet to the east southeast on the ridge that separates the Saddle River valley from the Hohokus Brook valley to the west. These two rivers join about two miles south of the southern end of the subject property and flow southwards into the Passaic River near the City of Passaic. The ridge to the west of the Saddle River reaches elevations of more than 400 feet above sea level but is mostly flat-topped. A number of small, unnamed creeks drain east and northeast off this ridge and into the Saddle River across N.J. Route 17. The plateau-like topography of the Piedmont Lowland physiographic province in Bergen County has been developed on the resistant Late Triassic and Jurassic period sedimentaries that occupy the Newark Basin between the Watchung Mountains and the Palisades Sill. These sedimentary deposits are mostly comprised of the shales and sandstones of the Stockton, Lockatong, Brunswick and Hammer Creek

Formations and they have been altered by metamorphism through contact with intrusive magmas and extrusive lava flows (Wolfe 1977: 77-84).

The landscape has been extensively modified by glacial action, however, chiefly through the deposition of variable amounts of glacial drift. Much of the area east of the Ramapo River and the Watchung Mountains, west of the Palisades Sill, between the state line and Paramus contains kames (mounds of outwash sands and gravels), kame terraces (terrace-like bodies of similar material deposited alongside valley walls and glacier edges) and eskers (ridges of glacial drift deposited by streams of meltwater). These deposits obscure many of the pre-glacial landforms and are the determining factor in the subject property's pedology (Wolfe 1977: 263-268). Soils are mapped as Dunellen-Urban land complex in the northeastern and very northwestern corners of the property, and as Urban land for most of the western half of the property (Figure 2.2) (NRCS 2019). Dunellen-Urban soils consist of well-drained sandy loams that form in outwash plains. Urban soils are mapped where the original soils are considered to have been disturbed. These are probably mapped in this area because of its proximity to N.J. Route 17.

B. FLORA AND FAUNA

The natural vegetation in the vicinity of the subject property is fairly typical of the mesic upland of North Jersey in that it has been severely influenced by the actions of humans over the past three centuries. Excessive cutting and recurring fire damage, particularly in the 19th century, has resulted in a widespread secondary growth with certain tree species,

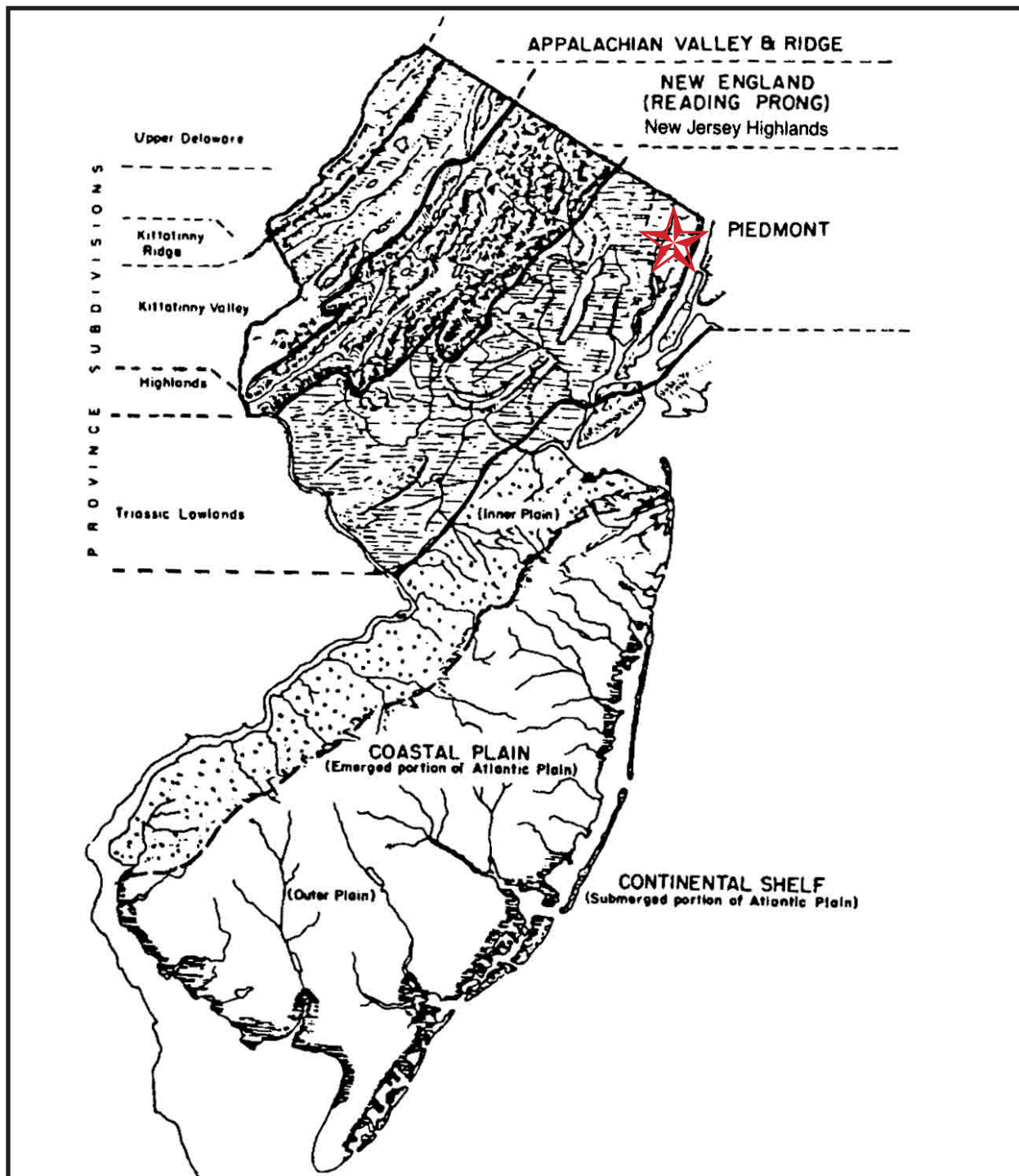


Figure 2.1. Physiographic Map of New Jersey Showing the Location of the Zabriskie-Schedler House. Source: Wolfe 1977.

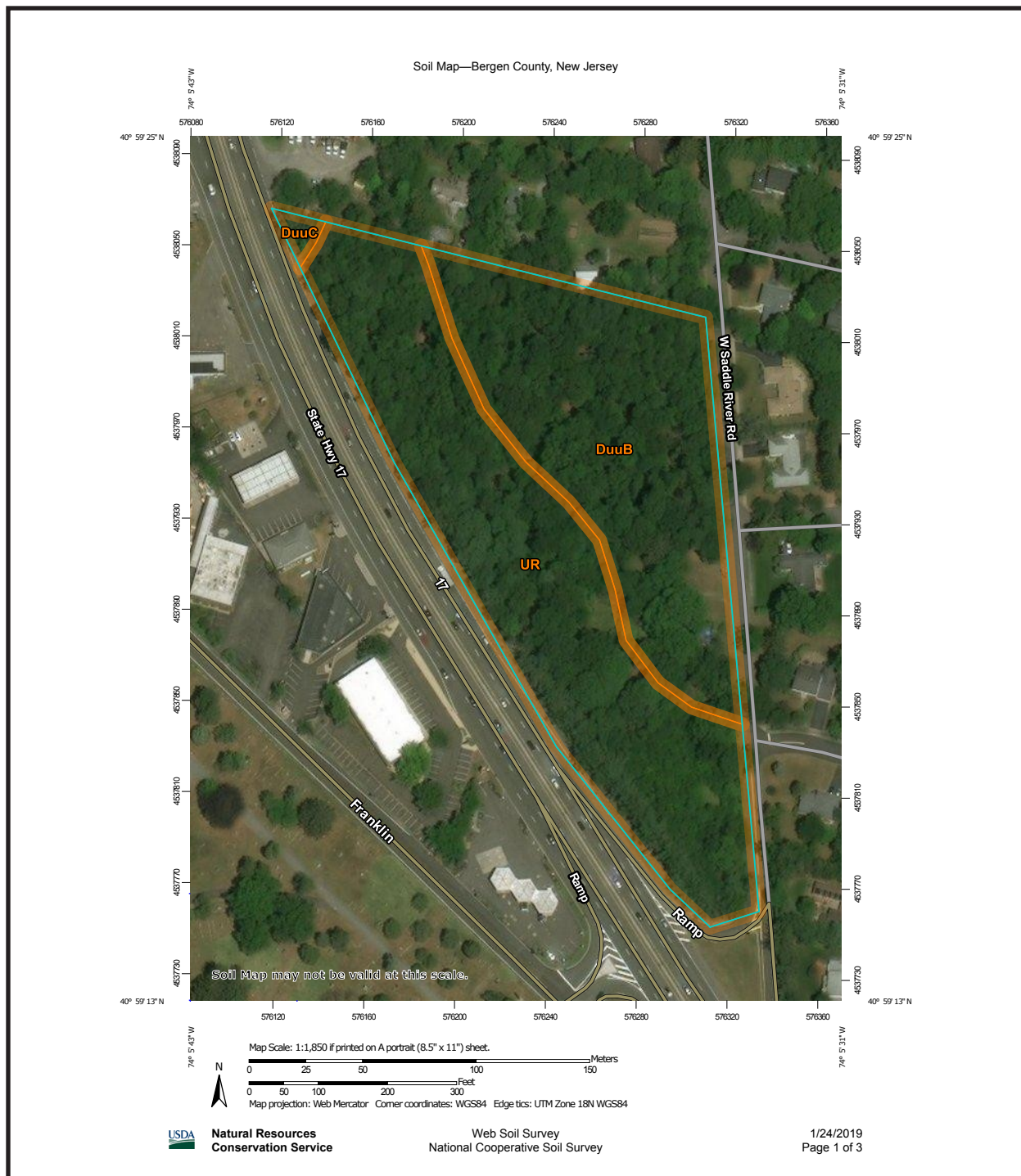


Figure 2.2. Project Site Soils. Project site outlined. Source: Natural Resources Conservation Service (USDA), Web Soil Survey, accessed November 14, 2018. Key: DuuB = Dunellen-Urban land complex, 3 to 8 percent slopes; DuuC = Dunellen-Urban land complex, 8 to 15 percent slopes; UR = Urban land.

notably pitch pine, oak, sugar maple, hemlock and birch, being favored over others. All these species are represented within the subject property. The understory and ground cover within the subject property is comparatively sparse; grasses predominate with jewel weed and other fast-growing weeds also represented (Robichaud and Buell 1973). Virtually no faunal species were observed during the course of fieldwork. It is likely that the area is inhabited by small numbers of deer, squirrels, woodchucks, rabbits, small rodents, box turtles and grass snakes.

C. CURRENT LAND USE

The subject property is undeveloped. The only standing building is the Zabriskie-Schedler House. This structure is surrounded by an unkept yard, and secondary, mixed deciduous woodland has grown in what were the farm fields at the beginning of the 20th century.

Chapter 3

PRECONTACT BACKGROUND

A. REGIONAL PRECONTACT OVERVIEW

The first evidence of human activity in the Middle Atlantic region occurred during the Paleo-Indian period, which is commonly dated to around 10,000 to 8,000 B.C. and characterized by terminal Pleistocene and early Holocene environments. From the shoreline along the continental shelf to the interior highlands the region slowly warmed to support stands of spruce, pine and birch and species such as musk ox, mammoth, horse and caribou. Paleo-Indian culture was characterized by small mobile groups subsisting through hunting, fishing and gathering. Most stone tools found from the Paleo-Indian period are associated with the processing of foods and other raw materials acquired through these activities. The tool kit typically contained fluted projectile points for the killing and butchering of animals, biface knives for butchering and for the manufacture of other tools, and flaked tools for various purposes, such as working bone, antler or hide (Kraft 1986; Custer 1989; Kraft 2001).

Around 6,500 B.C., evolving Holocene environments continued to change with a gradual warming of the climate, while increasing precipitation was sufficient to support dense hemlock and oak forests. These environmental changes spurred a shift in human adaptation strategies producing new settlement subsistence patterns based around exploitation of new seasonally rich environments. This period, referred to as the Archaic period, is marked archaeologically by the appearance of the bifurcated projectile point, which generally dates no later than 6,000 to 5,500 B.C. Many Archaic period sites are categorized as macro-band and micro-band base camps and are typically found in or close to areas of maximum habitat

overlap such as interior freshwater swamps and river confluence loci. There is also a marked difference in the use of lithic resources in the Archaic period. The use of crypto-crystalline material declines noticeably as emphasis is placed instead on alternative lithic sources, such as rhyolite. Exploitation of rarely occurring rhyolite outcrops suggests changes in patterns of mobility and possibly of social organization. The Archaic period tool kit is more expansive and includes flaked stone artifacts and a range of ground stone tools, such as axes, gouges, grinding stones and plant processing tools (Custer 1989, 1996).

Further climatic changes, about 2,600 years B.C., produced the warmest and driest conditions of the current post glacial period, with oak and hickory emerging as the dominant tree species in the Middle Atlantic region. These climatic shifts roughly coincide with what is defined archaeologically in northern New Jersey as the Late Archaic, Early Woodland and Middle Woodland periods, dating to *circa* 3,000 B.C. to A.D. 1000. Native American occupation in this time period is exemplified by a greater degree of sedentism presumed to have been associated with larger stratified societies exploiting estuarine and riverine environments. The archaeological expression of this sedentism is most evident in large macro-band base camp sites established in the freshwater/saltwater interface zone and along the floodplains of major drainages. Evidence of long-distance trade/exchange networks involving exotic raw materials and finely finished artifacts is characteristic of this period, as is evidence of complex mortuary ceremonies, often in the form of cemeteries containing rich grave offerings. The appearance of cache pits and ceramic storage vessels coincides with new diagnostic lithic projectile

point forms, such as large narrow-bladed stemmed points, smaller stemmed points, broadspear types and triangles.

About 2,000 years ago, shorelines and landforms similar to those of today began to emerge as warm and dry climatic conditions gave way to a cooler, moister modern climate. The dominant oak-hickory forest was also superseded by oak and chestnut vegetation. By A.D. 1000, the archaeologically defined Late Woodland period is recognizable. The intensive trade and exchange network noted during the Middle Woodland phase fades from the archaeological record, although increasing evidence of sedentism is manifested in the expanded use of storage facilities and more permanent house structures. Increased harvesting of plants reflects an intensification of food procurement, both of which are generally accepted as being brought about by population growth. Formal agricultural production also stems from this entrenchment of a sedentary settlement pattern and was maintained until European contact. Material culture of the Late Woodland period is typified by distinctive ceramic forms with more complex decorations and by small triangular projectile points reflective of bow-and-arrow technology (Custer 1989).

B. LOCAL PRECONTACT CONTEXT

Background research was undertaken to establish the locations of previously documented Native American archaeological sites in the vicinity of the subject property. This task involved consultation of site maps and files at the New Jersey State Museum and the New Jersey Historic Preservation Office and a review of relevant published secondary sources on New Jersey prehistory (notably, Skinner and Schrabisch 1913; Cross 1941).

There are 27 previously documented Native American archaeological sites located within a two-mile radius of the project site, but only four within one mile (Table 3.1). Of these 16 were formally recorded almost a century ago by Max Schrabisch, a noted avocational archaeologist who had exceptional field knowledge of finds of precontact artifacts throughout northeastern New Jersey. While his survey records were of varying quality, this information formed a substantial part of the statewide archaeological survey that was published in 1913 as a bulletin of the Geological Survey of New Jersey (Skinner and Schrabisch 1913). The other 11 were recorded as part of the New Jersey Indian Sites Survey, a Works Projects Administration-funded effort to identify and map precontact sites in the state. While the project was overseen by Dorothy Cross at the New Jersey State Museum, many of the sites in this area were recorded by C.F. Schondorf, with details printed on file cards that are available at the museum.

Three of the four sites located within one mile of the subject property (28-Be-40, -41, and -42) are located to the southwest near the center of Ridgewood along Hohokus Creek. The fourth (28-Be-35) is located south of the subject property close to Wild Duck Pond. Unfortunately no information is provided for these sites. Site 28-Be-119 is also located along the Hohokus Brook a little further southwest of the site. It was identified by the Indian Site Survey, which described it as having yielded arrowheads, spears, axes, pestles, banner-stones, and black flint chips (NJSM Site Files). Sites 28-Be-36, -37, -123 and -124 are located almost two miles south on the eastern bank of the Saddle River and on the interfluvium between it and the Sprout Brook Tributary. These sites are described as having yielded similar artifacts. Although 28-Be-123 is described as having yielded a particularly good collection of artifacts including arrowheads, spearheads, long pestles, axes, celts, bannerstones (Late Archaic-period spear throwing weights), chips of jasper, flint and white quartz and Woodland-period pottery, suggesting it was a more

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Table 3.1. Previously Identified Prehistoric Sites within Two Miles of the Subject Property.

Site Name	Municipality	Smithsonian Inst. Registration #	Atlas Reference #	Bibliographic Reference	Distance from Project Site	Notes
Paramus [1]	Ridgewood	28-Be-35	23-43-2-7-1	Skinner and Schrabisch 1913:83	0.95 miles southwest	n/a
Paramus [2]	Paramus	28-Be-36	23-43-2-7-6	Skinner and Schrabisch 1913:83	1.12 miles southeast	Axes, knives, scrapers and some fine jasper and white quartz arrowheads, also the usual chip material. No pottery
Paramus [3]	Paramus	28-Be-37	23-43-2-7-9	Skinner and Schrabisch 1913:83	1.26 miles southeast	n/a
n/a	Paramus	28-Be-38	23-42-5-2-5	Skinner and Schrabisch 1913:83	n/a	n/a
Paramus [4]	Paramus	28-Be-39	23-43-5-3-1	Skinner and Schrabisch 1913:83	1.85 miles southeast	n/a
Ridgewood [1]	Ridgewood	28-Be-40	23-43-1-6-4	Skinner and Schrabisch 1913:83	0.93 miles southwest	n/a
Ridgewood [2]	Ridgewood	28-Be-41	23-43-1-6-8	Skinner and Schrabisch 1913:83	0.91 miles southwest	n/a
Dunker Hook	Ridgewood	28-Be-42	23-43-1-6-5,6	Skinner and Schrabisch 1913:83	0.74 miles southwest	n/a
Wearimus	Hillsdale	28-Be-50	23-33-9-7-4	Skinner and Schrabisch 1913:83	1.92 miles northeast	n/a
Westwood [1]	Washington	28-Be-51	23-43-3-4-2	Skinner and Schrabisch 1913:83	1.62 miles east	n/a
Westwood [2]	Washington	28-Be-52	23-43-3-4-4	Skinner and Schrabisch 1913:83	1.52 miles east	Spears, arrowheads, knives, and scrapers; chips of flint, quartz, chert, and slate. No pottery
Westwood [3]	Washington	28-Be-53	23-43-3-4-5	Skinner and Schrabisch 1913:83	1.97 miles southeast	n/a
Westwood [4]	Washington	28-Be-54	23-43-3-4-9	Skinner and Schrabisch 1913:83	1.97 miles southeast	Arrowheads, scrapers, knives; chips of chert, flint, and white quartz. No pottery. Site has not been plowed since 1918.
Town of Saddle River [1]	Saddle River	28-Be-75	23-33-7-6-6	Skinner and Schrabisch 1913:83	2.04 miles north	n/a
Town of Saddle River [2]	Saddle River	28-Be-76	23-33-8-4-7	Skinner and Schrabisch 1913:83	1.71 miles north	n/a
Town of Saddle River [3]	Saddle River	28-Be-77	23-33-8-4-5	Skinner and Schrabisch 1913:83	1.96 miles north	n/a
Saddle River	Saddle River	28-Be-104	23-33-8-7-2	NJ Indian Site Survey:2	1.49 miles north	See Bulletin No. 9 - Schrabisch - The Isabelle Miller's Estate. The location numbers should read 23-33-8-7-2
Hillsdale [1]	Hillsdale	28-Be-105	23-33-8-8-2	NJ Indian Site Survey:2	1.56 miles northeast	Arrowheads, spears, scrapers, and knives; chips of flint, quartz, chert, argillite, and slate. No pottery noted.
Hillsdale [2]	Hillsdale	28-Be-106	23-33-8-8-6	NJ Indian Site Survey:2	1.48 miles northeast	Axes, arrows, spears, etc: chips of Jersey flint; one good grooved aze found 8 years ago by William Hessel; no pottery.
Hillsdale [3]	Hillsdale	28-Be-107	23-33-8-9-6	NJ Indian Site Survey:2	1.74 miles northeast	Artifacts found 75 years ago by father of Harry P. Winters, former owner.
Ridgewood [3]	Ridgewood	28-Be-119	23-43-1-8-9 9-7	NJ Indian Site Survey:3	1.16 miles southwest	Arrowheads, Spears, axes, pestles, banner-stones, and black flint chips.
n/a	Paramus	28-Be-120		NJ Indian Site Survey:3	1.36 miles south	n/a
Paramus Borough	Paramus	28-Be-121	23-43-2-9-5	NJ Indian Site Survey:3	1.55 miles south	Arrowheads, spears, scrapers, drills, hearthstones, and hammerstones.
Washington Township	Washington Township	28-Be-122	23-43-3-7-2,3	NJ Indian Site Survey:3	1.64 miles southeast	Arrowheads, large spears, large mortar, axes, scrapers, knives, and etc., No pottery found.
Paramus [5]	Paramus	28-Be-123	23-43-5-1-5	NJ Indian Site Survey:3	1.89 miles south	Arrowheads, spearheads, long pestles, axes, celts, bannerstones; chips of jasper, flint and white quartz. Potsherds were also found. The collection of the late Mr. Eiselman contained many fine artifacts from this site.
Paramus [6]	Paramus	28-Be-124	23-43-5-2-4	NJ Indian Site Survey:3	1.72 miles southwest	Arrowheads, crude axes, spearheads, hammerstones, knives, scrapers and other common artifacts; also chip material. No pottery.
Paramus [7]	Paramus	28-Be-125	23-43-5-3-2	NJ Indian Site Survey:3	1.97 miles south	Arrowheads, spearheads, knives, scrapers, chips of flint and quartz. No pottery.

substantial long term site. Sites 28-Be-38, -39, -120 and -125 are located to the southeast along a few small tributaries of the Sprout Brook. Little detailed information is available for these sites, except for Site 28-Be-125, which is said to have yielded arrowheads, spearheads, knives, scrapers, chips of flint and quartz and no pottery. Site 28-Be-121 is located a little further to the east along very small tributaries that feed highland brook and yielded the same assemblage of artifacts (NJSM Site Files).

Another cluster of sites was identified in the 1913 survey along Musquapsink Brook, Swamp Brook (a small tributary of Musquapsink Brook) and Schlegel Lake to the east (28-Me-51, -52, -53, -54, and -122). Artifacts from these sites yield the typical arrowheads, large spears, large mortar, axes, scrapers and knives, however none yielded Woodland-period pottery. To the northeast are several sites located on small tributaries of the Saddle River that yielded similar artifacts and no pottery (28-Me-105, -106, and -107). Four sites were identified along the main branch of the Saddle River to the north of the subject property (28-Me-75, -76, -77, and -104) but lack detailed information (NJSM Site Files).

Based on the distribution of known Native American archaeological sites in the project vicinity, the subject property is judged to have a low potential for yielding precontact artifacts. Although other sites have been identified nearby, these are almost all situated immediately adjacent to watercourses, springs or ponds. The absence of a water source or significant landscape features (such as a rock outcrops) within the Zabriskie-Schedler property would not have made it attractive for occupation by Native American people. Given its situation in an upland area between watercourses where significant occupation has been demonstrated, there is the possibility that precontact artifacts could be found but these are likely to be isolated finds.

Chapter 4

HISTORICAL OVERVIEW

This chapter presents a brief historical background of the John A.L. Zabriskie House, also known as the Zabriskie-Schedler House. It draws on historical research and documentation developed for the recently prepared National Register of Historic Places Nomination Form (Connolly & Hickey Historical Architects, LLC 2018). The property is currently in the process of being listed on the New Jersey and National Registers of Historic Places. This chapter is largely extracted from this source, though limited additional research into historic maps and secondary sources at the New Jersey State Library and New Jersey Historic Preservation Office was also undertaken.

In 1668, the project site and the land currently encompassed by the Village of Ridgewood formed part of a 15,306-acre tract of land acquired by Captain William Sanford. Sanford combined his land with equally large tracts owned by John Berry and Nathaniel Kingsland. Sanford, Berry and Kingsland, all natives of Barbados, christened their property, which was bounded by the Hackensack, Passaic and Saddle rivers and Newark Bay, “New Barbadoes.” The Township of New Barbadoes, originally in Essex County, became part of Bergen County in 1710. The project site fell within Saddle River Township in 1716, when it was formed from New Barbadoes Township. In 1772, Franklin Township was established from the northern portion of Saddle River Township. During the ensuing 150 years, Franklin Township gradually decreased in size as new municipalities, including Ridgewood Township in 1876, formed from its boundaries. During the late 19th century, Bergen County witnessed an explosion of new municipalities as it became the trend for towns to establish their independence as boroughs. This trend affected Ridgewood

Township, which fractured into numerous boroughs. In 1894, The Village of Ridgewood was incorporated from the land that remained in Ridgewood Township. The Village of Ridgewood received additional land from neighboring municipalities during the 20th century and reached its current boundaries in 1974 (Snyder 1969: 75-91; Connolly & Hickey Historical Architects, LLC 2018: 8-1).

During the 18th century, the project site comprised part of a large undefined area known as Paramus or Peremis due to the proximity of the Paramus Reformed Church, which stands approximately 500 feet south of the Zabriskie-Schedler House on the south side of New Jersey Route 17. The Paramus Reformed Church was founded in 1725, a first church building constructed in 1735, and the current building was completed in 1800. The church stood at the intersection of two important colonial thoroughfares; one of these thoroughfares, known as the Clove Road (present-day Saddle River Road), ran from Hackensack through the Ramapo Pass to Goshen, New York, and the second road passed from Tappan, New York, through Hoppertown (Hohokus) to Pompton (present-day Glen Avenue) (Tholl 1974). A map of New Jersey and New York produced in 1769 shows the Paramus Reformed Church at the intersection of these roads along with a cluster of buildings, and it identifies the settlement as Paramus (Figure 4.1). Interestingly, several discrepancies are evident between this map and *A Sketch of the Northern Parts of New Jersey* published by John Hills in 1781 (Figure 4.2). The Hills map only depicts the road to Hohokus and it places the Paramus Reformed Church on the south side of the road. Regardless, during this period, the project site formed part of a 45-acre tract of land in Paramus that Magdalen Valleanu granted to the

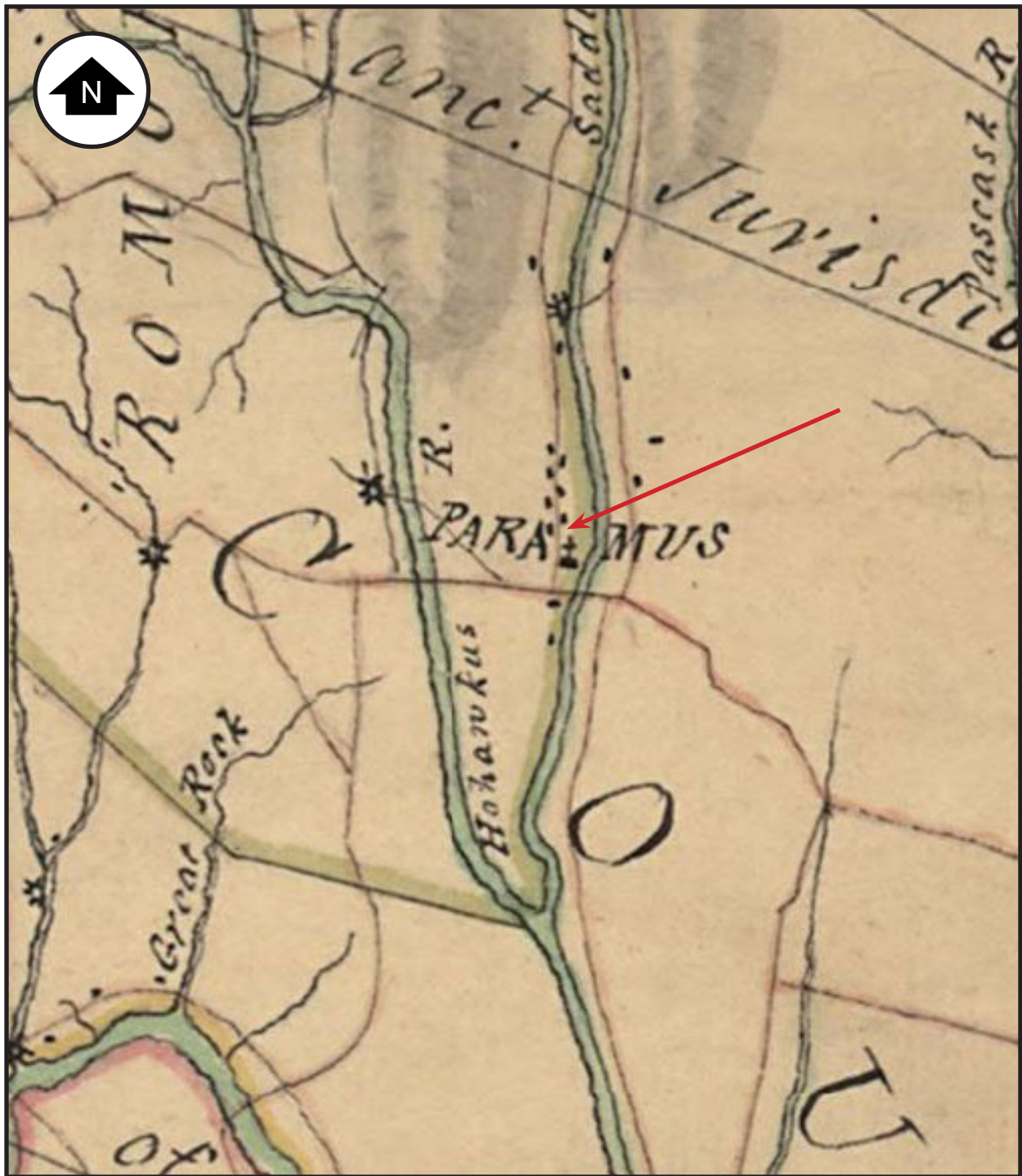


Figure 4.1. *Three Maps of Northern New Jersey with Reference to the Boundary between New York and New Jersey* (detail). 1769. Approximate location of project site indicated with arrow. Scale: 1 inch = 5280 feet (approximately).

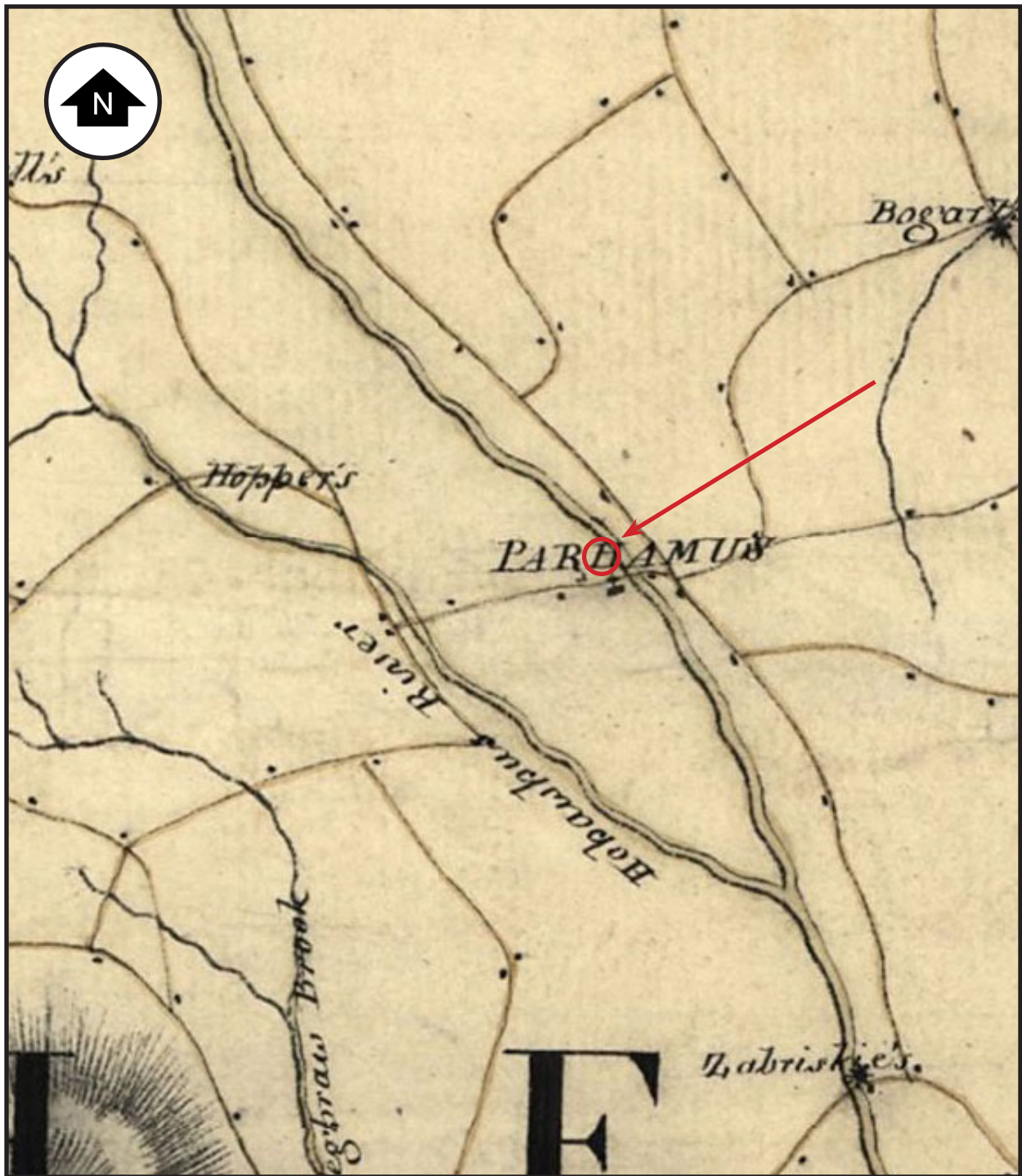


Figure 4.2. Hills, John. *A Sketch of the Northern Parts of New Jersey* (detail). 1781. Scale: 1 inch = 2 miles (approximately). Location of project site circled (approximately).

Paramus Reformed Church in 1750 to fulfill a promise made by her father, Peter Fauconnier (Connolly & Hickey Historical Architects, LLC 2018: 8-2).

With its proximity to New York, Bergen County experienced military activity throughout the Revolutionary War from 1776 to 1783 (Table 4.1) (Munn 1976). Within the vicinity of the project site, the Paramus Reformed Church held strategic importance and became a focus of military activity, and West Saddle River Road was one of the northern approaches to this crossroads. According to the National Register nomination of the Paramus Reformed Church Historic District, the Paramus Reformed Church served variously as a barracks, hospital and prison, and General George Clinton camped at the church in December 1776 (Tholl 1974). General George Washington established his headquarters at the Paramus Reformed Church at various times and held a session of the court-martial of General Charles Lee at the church from July 11 to July 15, 1778 (Tholl 1974). A skirmish between British and Continental forces occurred at the Paramus Reformed Church in March of 1780 (Connolly & Hickey Historical Architects, LLC 2018: 8-2). Moses Hazen's Regiment and the New Jersey Line camped in the vicinity of the Paramus Reformed Church during the Continental Army's march south to Yorktown in 1781 (Selig 2006). Since the southern end of the subject property was part of the church property during this period military activities said to have taken place at Paramus Reformed Church, particularly the encampments, may have been conducted at least partially within the property.

The Paramus Reformed Church retained ownership of the project site into the early 19th century. In 1825, John A.L. Zabriskie purchased from the Paramus Reformed Church a 9.25-acre tract of land bounded by West Saddle River Road and Franklin Turnpike. It is unclear if the 1.5-story west wing of the Zabriskie-Schedler House already existed when Zabriskie purchased the property or if he constructed it after pur-

chasing the property. The Zabriskie-Schedler House is a vernacular, wood-frame, Dutch-American dwelling. It consists of the original *circa* 1825 1.5-story, gable-roof wing with a rubble fieldstone foundation, a *circa* 1840 2-story, gambrel-roof addition with an ashlar brownstone foundation to the east elevation of the original wing, two 20th-century 1-story additions and a 21st-century enclosed porch enclosure. The dwelling faces south, and a former driveway, which currently manifests itself as a depression in the lawn, is located to the north of the house. With its *circa* 1825 to *circa* 1840 date of construction, gambrel-roof main block and gable-roof wing, stone foundation, heavy oak timber framing, south-facing orientation and interior end fireplaces, the Zabriskie-Schedler House displays character-defining architectural features of a northern New Jersey Dutch wood-frame house of its period (Connolly & Hickey Historical Architects, LLC 2018: 8-4, 8-5, 8-6).

A series of early-19th-century maps shows that the road network surrounding the project site and within Paramus was well established by this period. While William Watson's *A Map of the State of New Jersey*, which was published in 1812, only depicts major roads and towns and does not provide any details about the project site and the surrounding area, the maps of New Jersey produced by Thomas Gordon in 1828 and 1833 show Saddle River Road, Franklin Turnpike and the Paramus Reformed Church (Figures 4.3-4.5). Unsurprisingly, the Zabriskie-Schedler House does not appear on either of the Gordon maps. It appears that Zabriskie drastically expanded the size of the house during the 1830s, constructing the two-story, gambrel-roof east wing *circa* 1840 to accommodate his growing family (Connolly & Hickey Historical Architects, LLC 2018: 8-2). A U.S. Coast Survey *Map of Part of New York and New Jersey* published in 1840 shows the Zabriskie-Schedler House against the west side of the West Saddle River Road. It reveals

Table 4.1. Revolutionary War Actions at Paramus (from Munn 1976).

Date	Action	Reference
December 16, 1776	Gen. William Heath and Gen. George Clinton capture stores at Paramus in the face of strong British resistance.	Leiby 1962:93
December 27, 1776	Party of Loyalists raids Hopperstown and Paramus.	NJ History 1960:164
April 22, 1777	Royal Bergen Volunteers chase party of rebel suttlers beyond Closter and capture their stores.	Leiby 1962:116 NJ Archives, 2nd Series, Vol. I, 354
May 12, 1777	Colonel Barton (Br.) attacks picket post under Peter Fell (Am.) at Paramus	Leiby 1962:117 NJ History 1960:165
June 13, 1777	British party of 200 under Col. Barton invades Bergen County as far as Paramus without opposition. Supposedly chase a rebel party under Frelinghuysen	NJ Archives 2nd Series, Vol. I, 398
May 18, 1779	Gen. Henry Clinton mounts full-scale military move through Closter against American troops at Paramus Church.	Leiby 1962:210
August 18, 1779	Major Henry Lee leaves Paramus with men and wagons (attacks Paulus Hook in successful pre-dawn raid the next morning)	Ryan 1975:62
March 22, 1780	About 400 British and foreign troops from New York advance to Paramus, take some prisoners and plunder several houses	NJ Archives, 2nd Series, Vol. IV, 280 NJ History 1960:171
April 16, 1780	British party of 200 horse and 300 foot invade Paramus and surprise Maj. Thomas Biles of the Pennsylvania Line. Biles mortally wounded and his Lieutenant kill. Many British casualties/	NJ Archives, 2nd Series, Vol. IV, 321, 324, 350 NJ History 1960:172-173

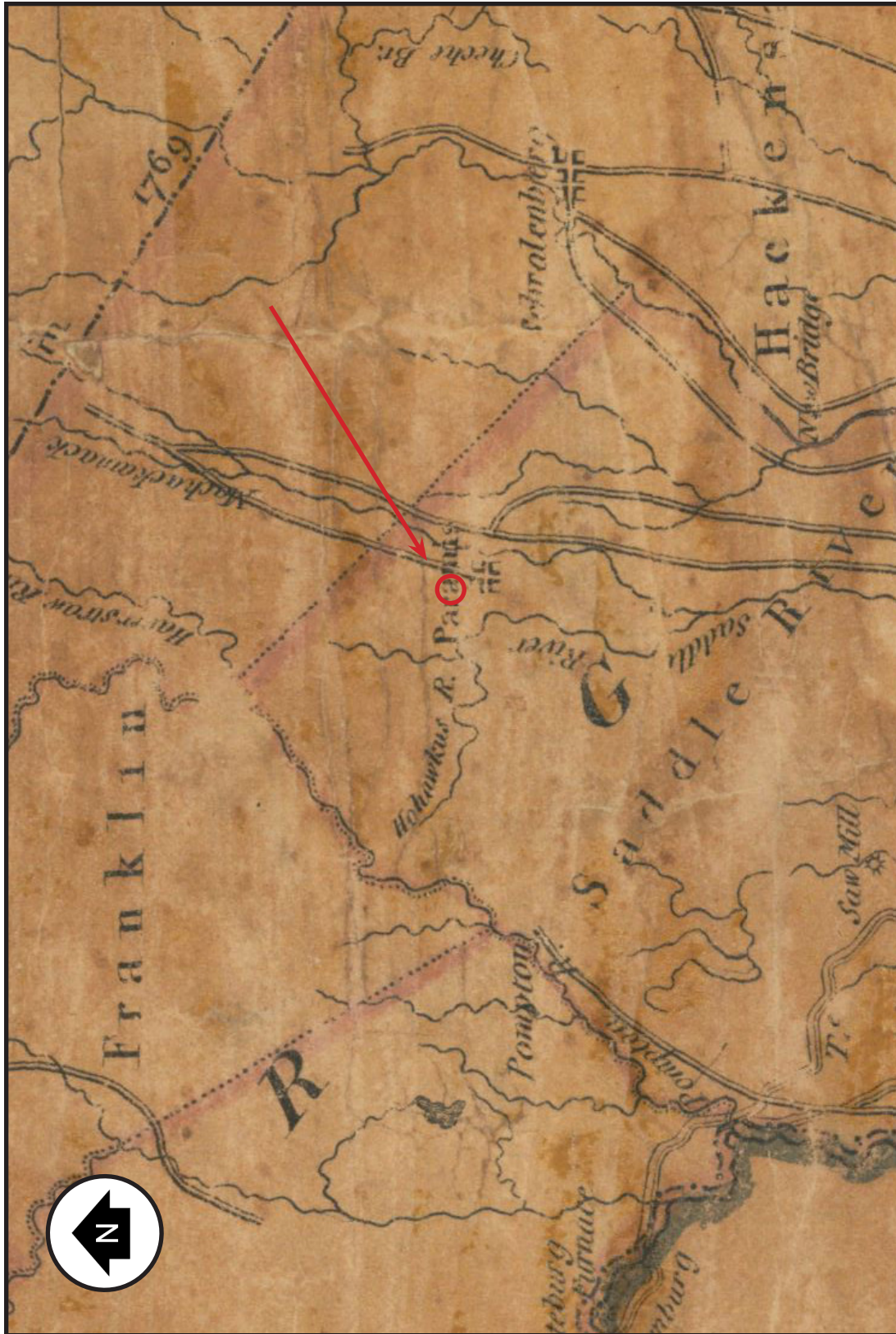


Figure 4.3. Watson, William. *A Map of the State of New Jersey, Compiled from the Most Authentic Information* (detail). 1812. Scale: 1 inch = 2 miles (approximately). Location of project site circled (approximately).

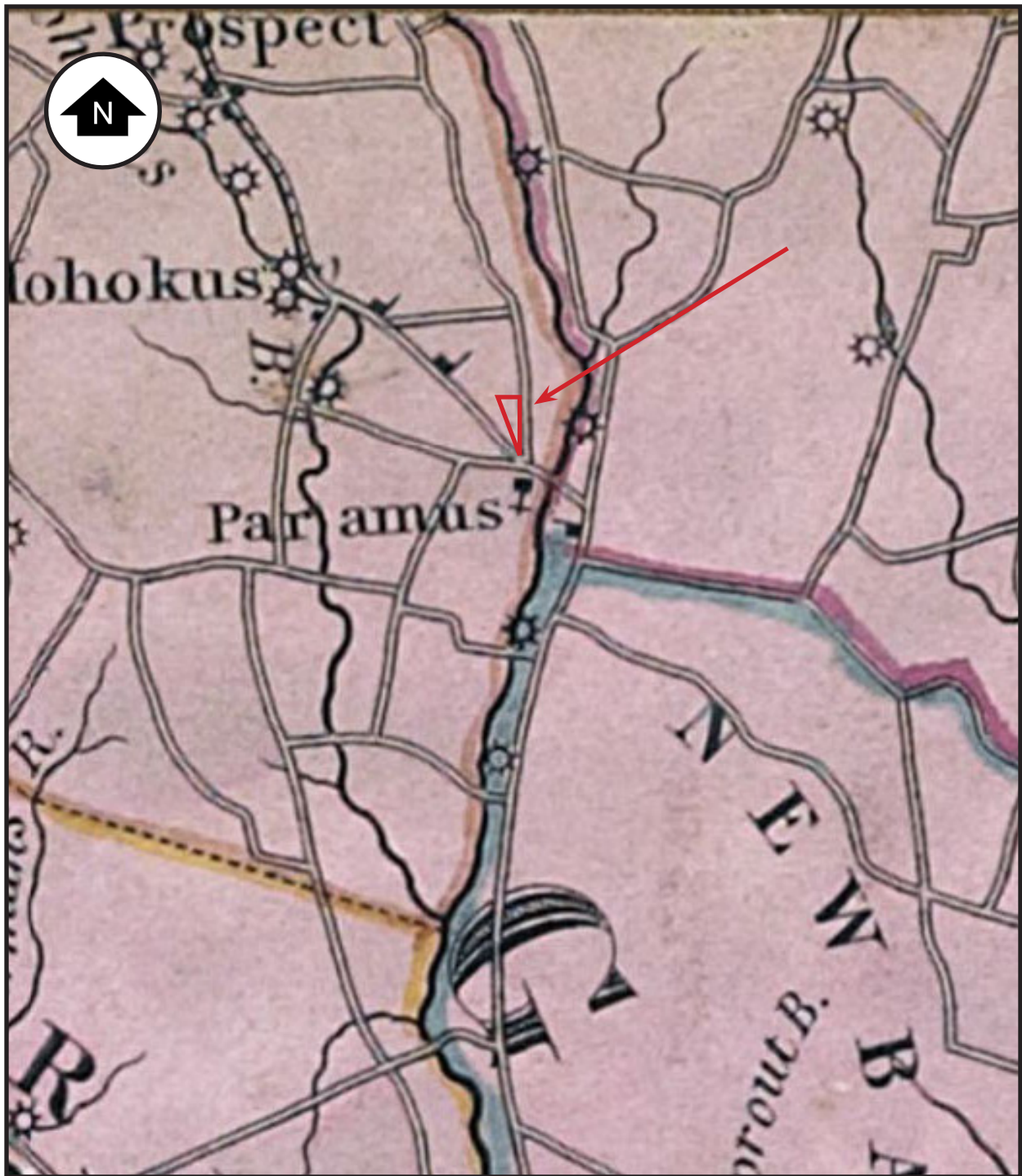


Figure 4.4. Gordon, Thomas. *Map of the State of New Jersey: with Part of the Adjoining States* (detail). 1828. Scale: 1 inch = 2560 feet (approximately). Approximate location of project site outlined.

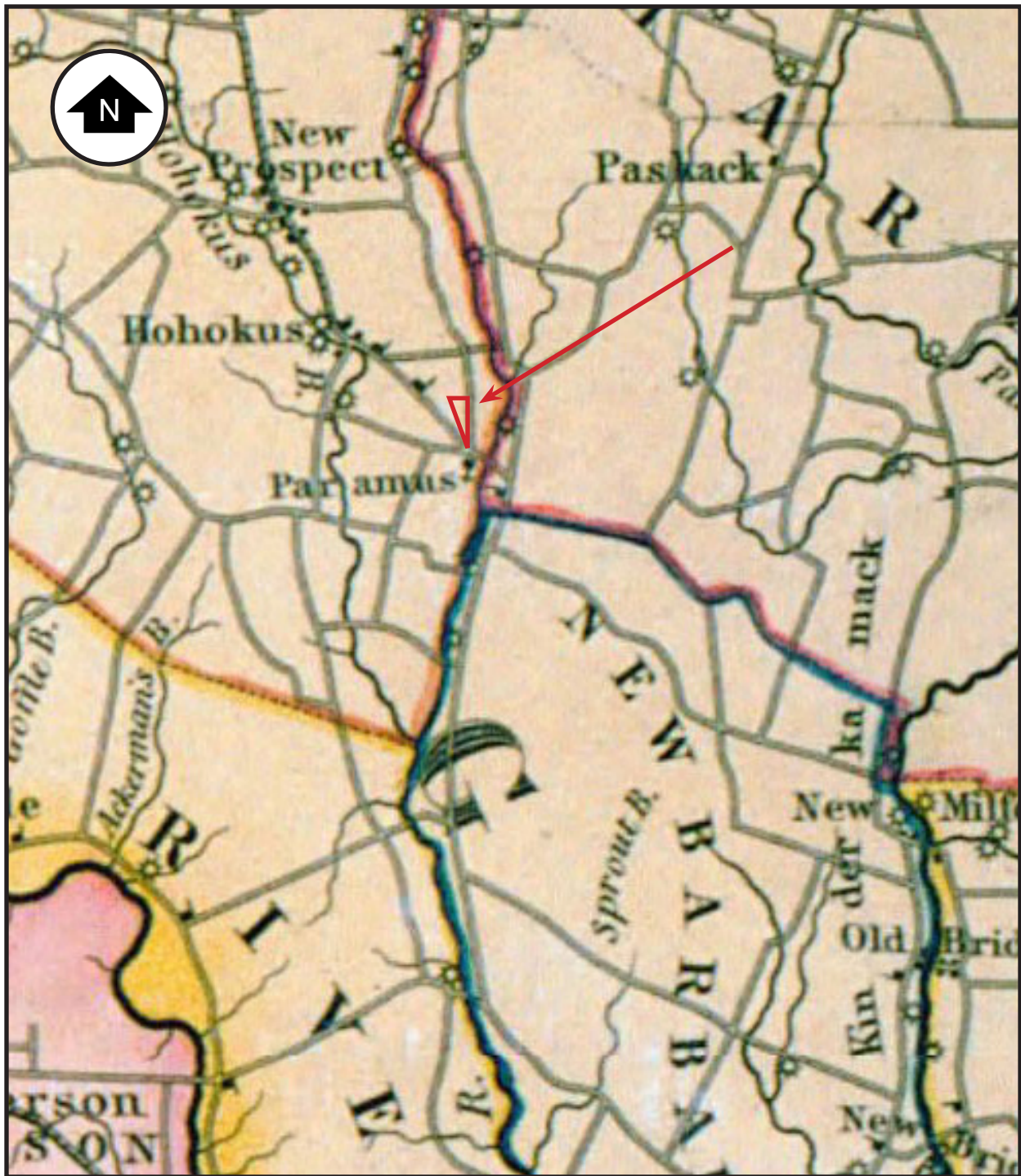


Figure 4.5. Gordon, Thomas. *Map of the State of New Jersey: with Part of the Adjoining States* (detail). 1833. Scale: 1 inch = 3680 feet (approximately). Approximate location of project site outlined.

two outbuildings to the northwest of the house, and a small orchard in the northwest corner of the property (Figure 4.6).

Zabriskie occupied the property with his wife, Elizabeth, whom he married around 1819, and their children. The couple eventually had seven children: Albert, James, Jacob, Margaret, Simeon, George, and Martha Ann. By 1840, the Zabriskie-Schedler House housed eight people, one of whom worked in agriculture and two of whom worked in manufacturing. By 1850, the size of the Zabriskie household had begun to decrease as Zabriskie's children established their own households. The 1850 federal population census schedule for Franklin Township reports that 60-year-old John Zabriskie lived with his wife Elizabeth (age 50), his son James (age 27), his son Simeon (age 19), his daughter Martha Ann (age 16) and his daughter-in-law, Catherine (age 25). John Zabriskie, James Zabriskie and Simeon Zabriskie all worked as farmers. According to the federal population census schedule of 1860, Zabriskie (age 70) and his wife Elizabeth (age 60) continued to live in the Zabriskie-Schedler House, and Zabriskie owned real estate valued at \$4,500 and a personal estate valued at \$600. A 39-year-old James Zabriskie also occupied the house, but he headed a separate household that included his wife, Catherine (age 35), and their son John (age 9) (Connolly & Hickey Historical Architects, LLC 2018: 8-2).

Zabriskie owned and occupied the Zabriskie-Schedler house until his death in 1864. An inventory of his estate reveals a prosperous agricultural property furnished with livestock, a well-provisioned kitchen, farm products, fencing, carpets, a gilt-framed mirror and a brass clock. James Zabriskie subsequently inherited the Zabriskie-Schedler House and property along with five acres of maple swamp in New Barbadoes and thirty acres of land in Hohokus Township. Initially, like his father, James Zabriskie farmed the property with his son, John E. Zabriskie, and enjoyed relative

prosperity as a farmer. In 1870, the 49-year-old James Zabriskie headed a household that included his wife Catherine (age 44), son John (age 19), and a domestic servant named Hannah Goldtrap (age 75). He owned real estate valued at \$12,000 and a personal estate valued at \$1,300. It appears that Catherine Zabriskie died sometime during the next ten years, for the 1880 federal population census schedule for Ridgewood Township reports that James Zabriskie was age 59 and lived with his second wife, Rachel (age 52), and a boarder and laborer named Martin Magroff (age 22). His son, John E. Zabriskie (age 30), also occupied the Zabriskie-Schedler House and headed a separate household that included his wife, Amanda (age 22), and two young children (Connolly & Hickey Historical Architects, LLC 2018: 8-2, 8-3).

Changing economic conditions appear to have eventually created financial difficulties for James Zabriskie and his family in the last decades of the 19th century. The surrounding area gradually shifted from an agricultural economy to a suburban economy. The opening in 1848 of the Paterson and Ramapo Railroad, which ran through Franklin (Ridgewood) Township to the west of the project site, relocated the center of commercial activity from the area around the Paramus Reformed Church west to the area around the train station (Connolly & Hickey Historical Architects, LLC 2018: 8-2, 8-3). A series of mid- to late-19th-century maps captures the changing and increasingly developed landscape around the Zabriskie-Schedler House (Figures 4.7-4.9).

Zabriskie mortgaged his land in the 1880s, a portion of which he lost to foreclosure in 1889. In 1893, James Zabriskie sold the Zabriskie-Schedler House and the remainder of the property that he had inherited from his father to Seth Hawley. A police clerk from New York, Hawley exemplified the middle- and upper-middle-class professionals who were increasingly moving to Ridgewood as it slowly suburbanized in the late 19th century. While city directories from

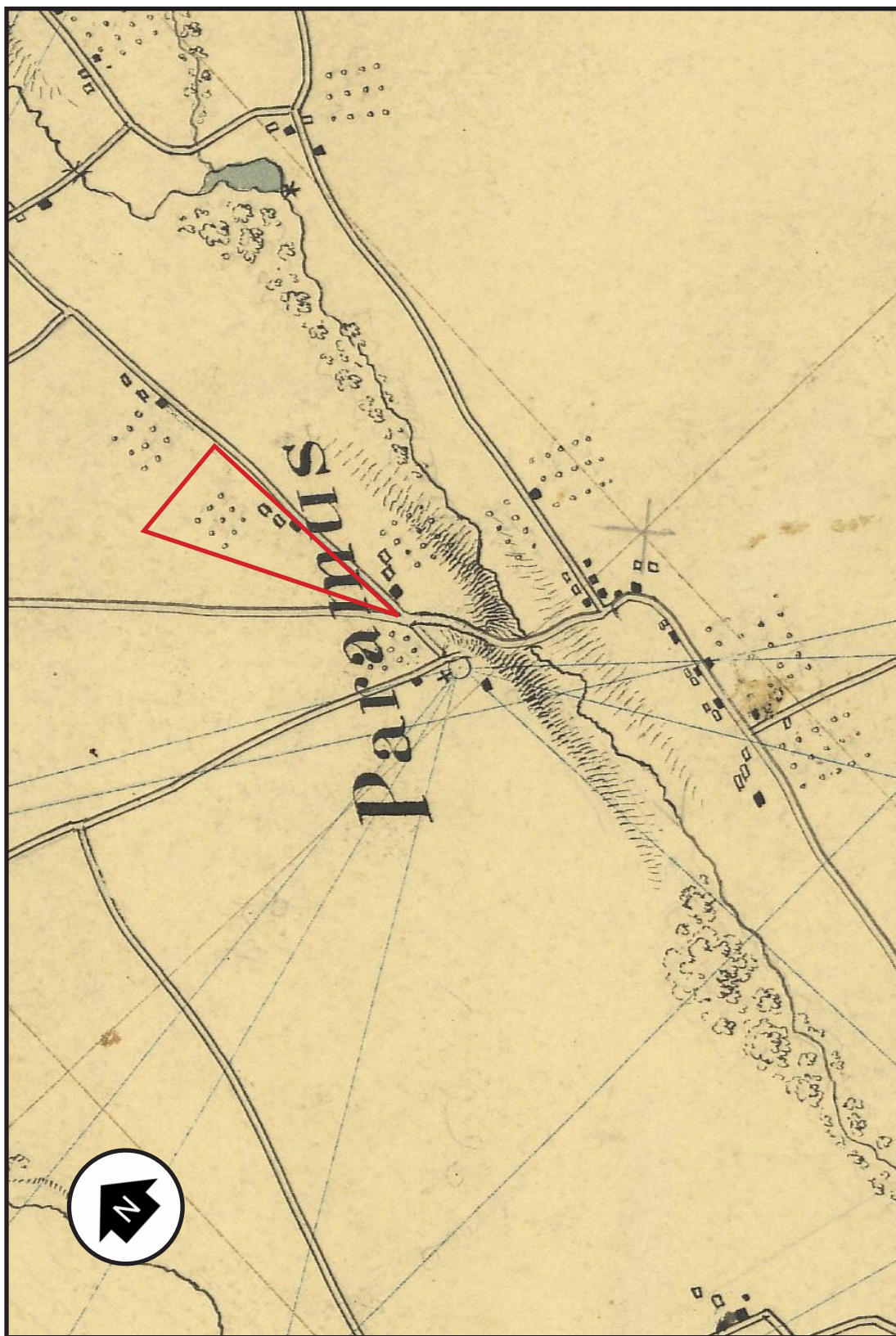


Figure 4.6. U.S. Coast Survey. *Map of Part of New York and New Jersey* (detail). 1840. Scale: 1 inch = 810 feet (approximately). Approximate location of project site outlined.

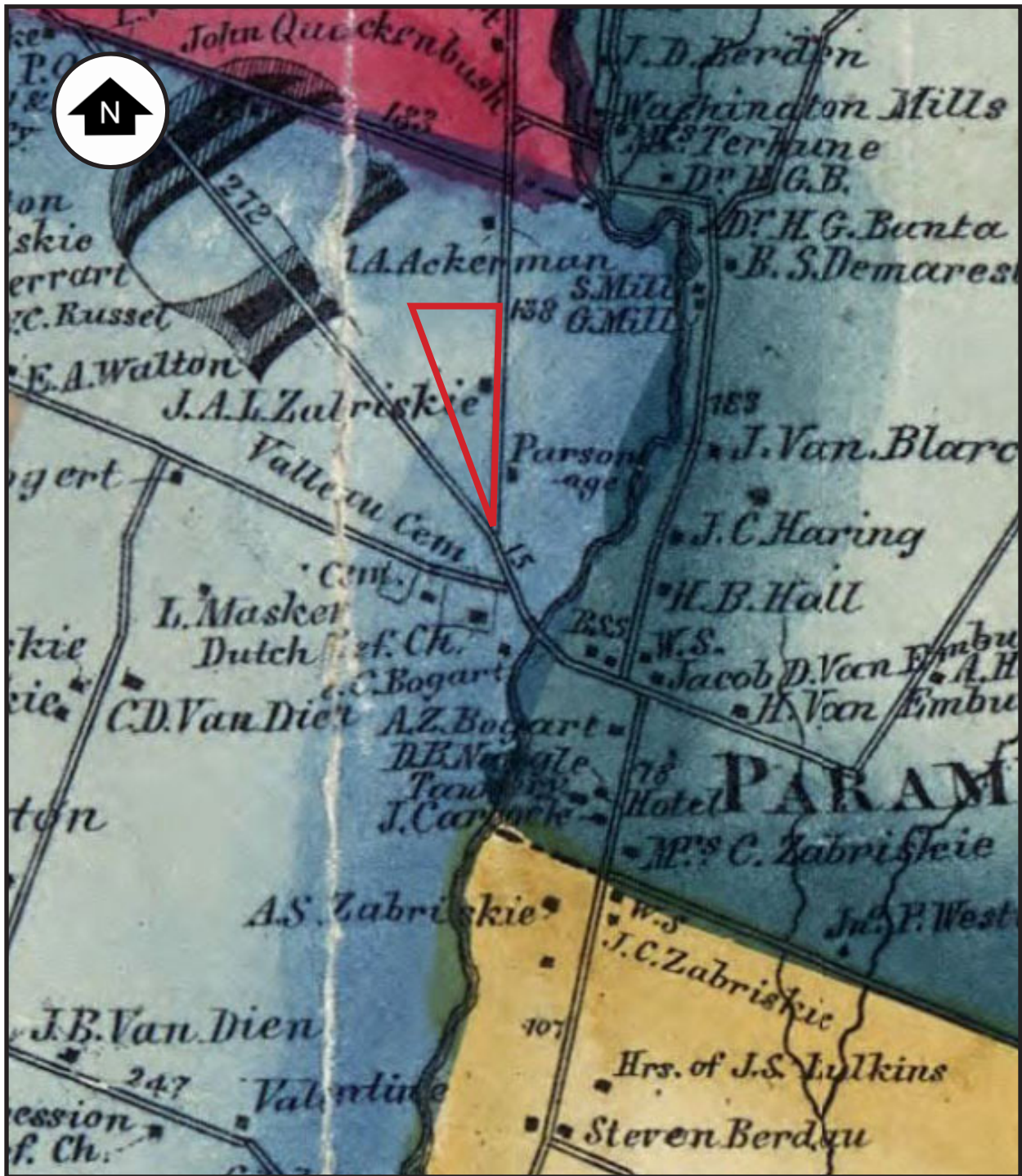


Figure 4.7. Hopkins, G.M. *Map of the Counties of Bergen and Passaic, New Jersey* (detail). 1861. Scale: 1 inch = 1025 feet (approximately). Approximate location of project site outlined.

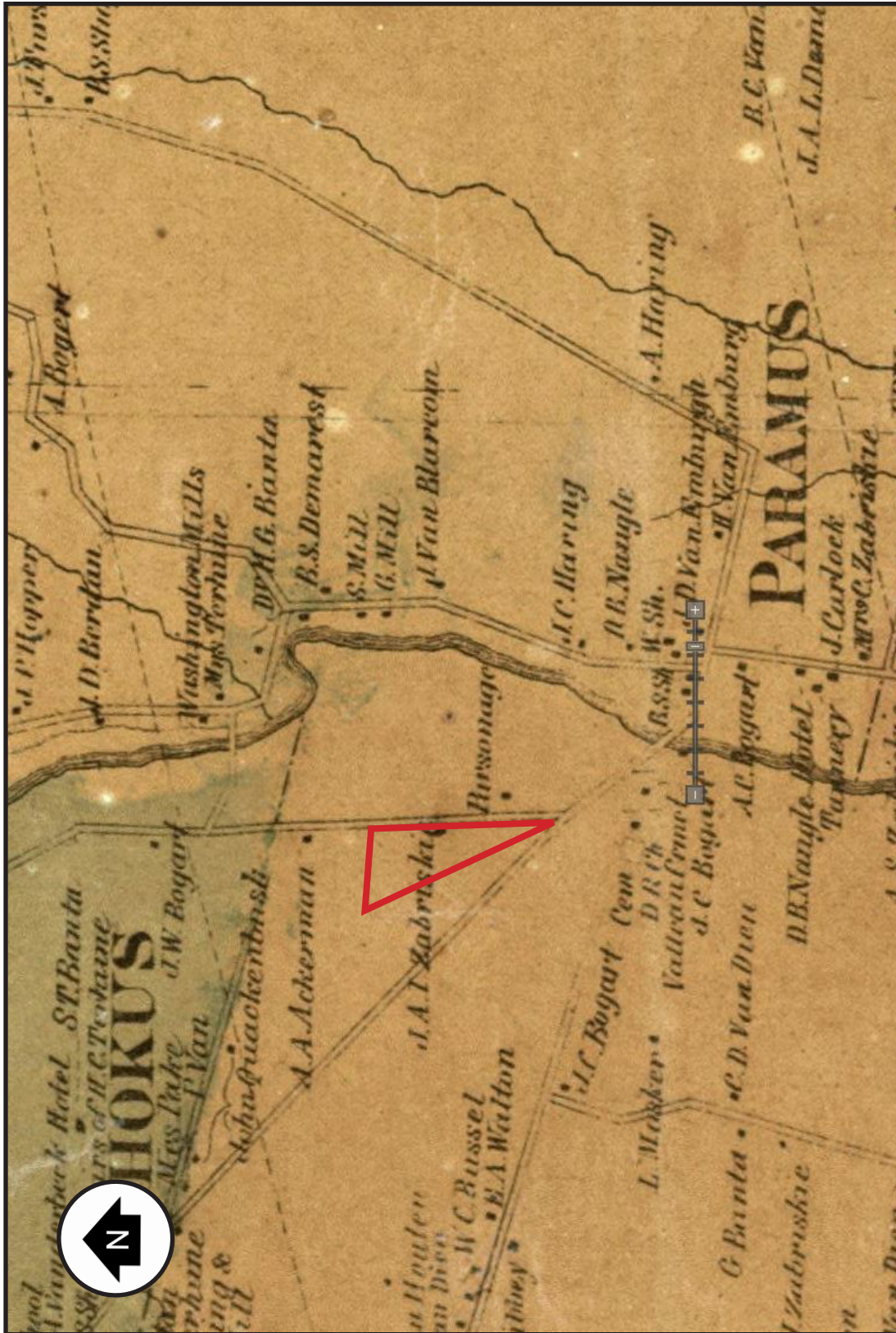


Figure 4.8. Walling, H.F. Map of the City of New York and Its Vicinity (detail). 1863. Scale: 1 inch = 1310 feet (approximately). Approximate location of project site outlined.

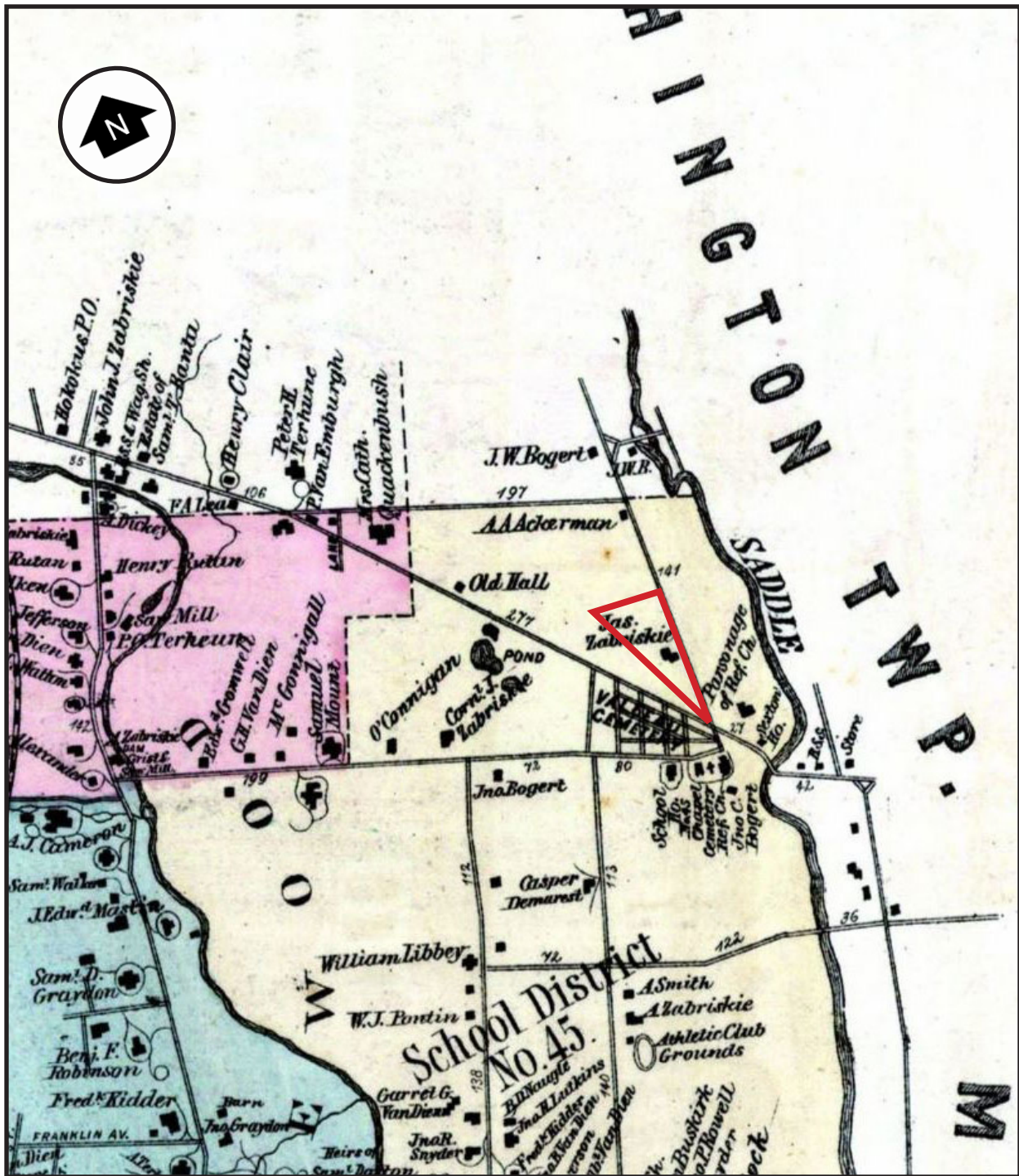


Figure 4.9. Walker, A.H. Ridgewood Township, *Atlas of Bergen County, New Jersey* (detail). 1876. Scale: 1 inch = 1375 feet (approximately). Approximate location of project site outlined.

the period indicate that Hawley lived in the dwelling, the federal population census schedule of 1900 for the Village of Ridgewood reports that he occupied a rented house on Maple Avenue. In 1900, the 57-year-old Hawley headed a household that included his wife Augusta (age 41), their sons Charles (age 23) and Seth (age 18), their daughter Lavinia (age 16), Hawley's mother Lavinia (age 87) and two servants. The census also listed James Zabriskie, who was 78 years old and described as a servant and retired farmer, as a member of the Hawley household (Connolly & Hickey Historical Architects, LLC 2018: 8-3). Regardless of the Hawley household's place of residence, the *Map of Bergen County* published by E. Robinson in 1902 identifies Hawley as the owner of the Zabriskie-Schedler House (Figure 4.10). The map also reveals the numerous new streets that had opened in the surrounding area as the result of suburbanization.

After Hawley died in 1901, his estate, including the Zabriskie-Schedler House and the 19.63-acres of land it occupied, passed to his widow. Augusta Hawley sold the Zabriskie-Schedler House and 18 acres of land to Carman Smith in 1908, retaining a 1.63-acre lot on Franklin Turnpike for her residence. The owner of Manhattan Press in New York City, Smith occupied the Zabriskie-Schedler House with his family. In 1910, Smith was 32 years old and led a household that included his wife Clara (age 32), their daughter Florence (age 7), and their son Milton (age 5). Carman and Clara Smith welcomed their daughter, Ruth, in 1915. A map of the Village of Ridgewood published by George W. and Walter S. Bromley in 1913 depicts the boundaries of Smith's property and shows that it contained the Zabriskie-Schedler House and an out-building to the northwest of the house (Figure 4.11). Clara Smith inherited the Zabriskie-Schedler House and the 16 acres of land on which it stood after her husband's death in 1921. She and her three children continued to occupy the Zabriskie-Schedler House. During this period, the Smith family added the south

porch entry and raised the original gambrel roof of the main east block to create a full second story (Connolly & Hickey Historical Architects, LLC 2018: 8-3, 8-4). The Zabriskie-Schedler House and the surrounding area experienced major changes in the 1930s (Figure 3.12). The State of New Jersey purchased three parcels of land from Clara Smith for the construction of a new highway known as New Jersey Route 2 (late renumbered Route 17) in 1934. This effectively cut Clara Smith's property in half, leaving five acres around the Zabriskie-Schedler House and undeveloped land west of the new highway. By 1934, Clara Smith lived with her daughter, Florence Smith, in the Zabriskie-Schedler House. Clara Smith died in 1959, and ownership of the house passed to Florence Smith and her husband August Schedler, a local attorney who married Florence between 1942 and 1946. August and Florence Schedler remained childless and occupied the Zabriskie-Schedler House until their deaths in 1995 and 2007, respectively. In 2009, the Village of Ridgewood purchased the Zabriskie-Schedler House (Connolly & Hickey Historical Architects, LLC 2018: 8-4).

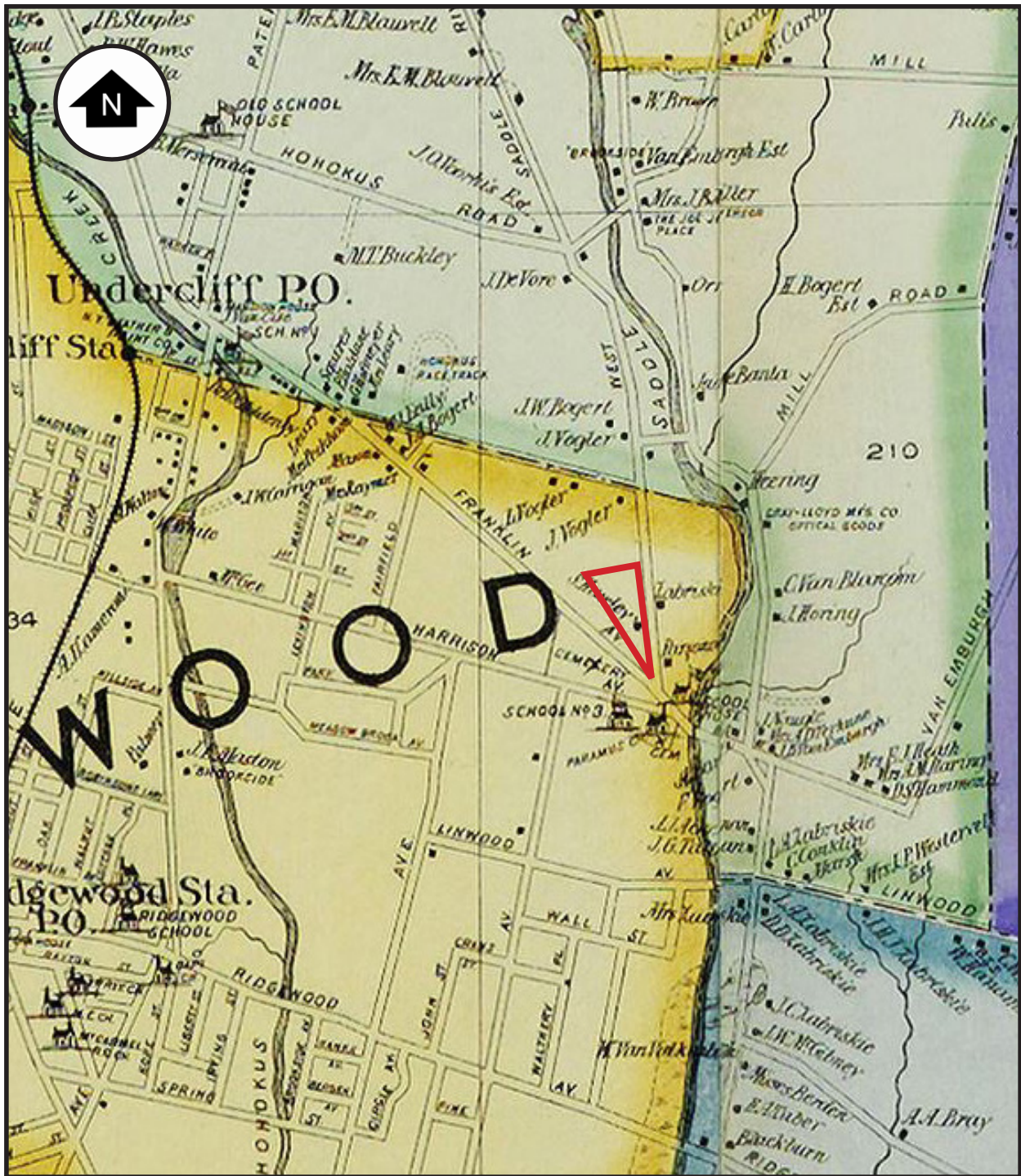


Figure 4.10. Robinson, E. *Map of Bergen County, New Jersey* (detail). 1902. Scale: 1 inch = 2590 feet (approximately). Approximate location of project site outlined.



Figure 4.11. Bromley, George W. and Walter S. Bromley. *Atlas of Bergen County, New Jersey*, Volume 2, Plate 24. 1913. Scale: 1 inch = 925 feet (approximately). Approximate location of project site outlined.

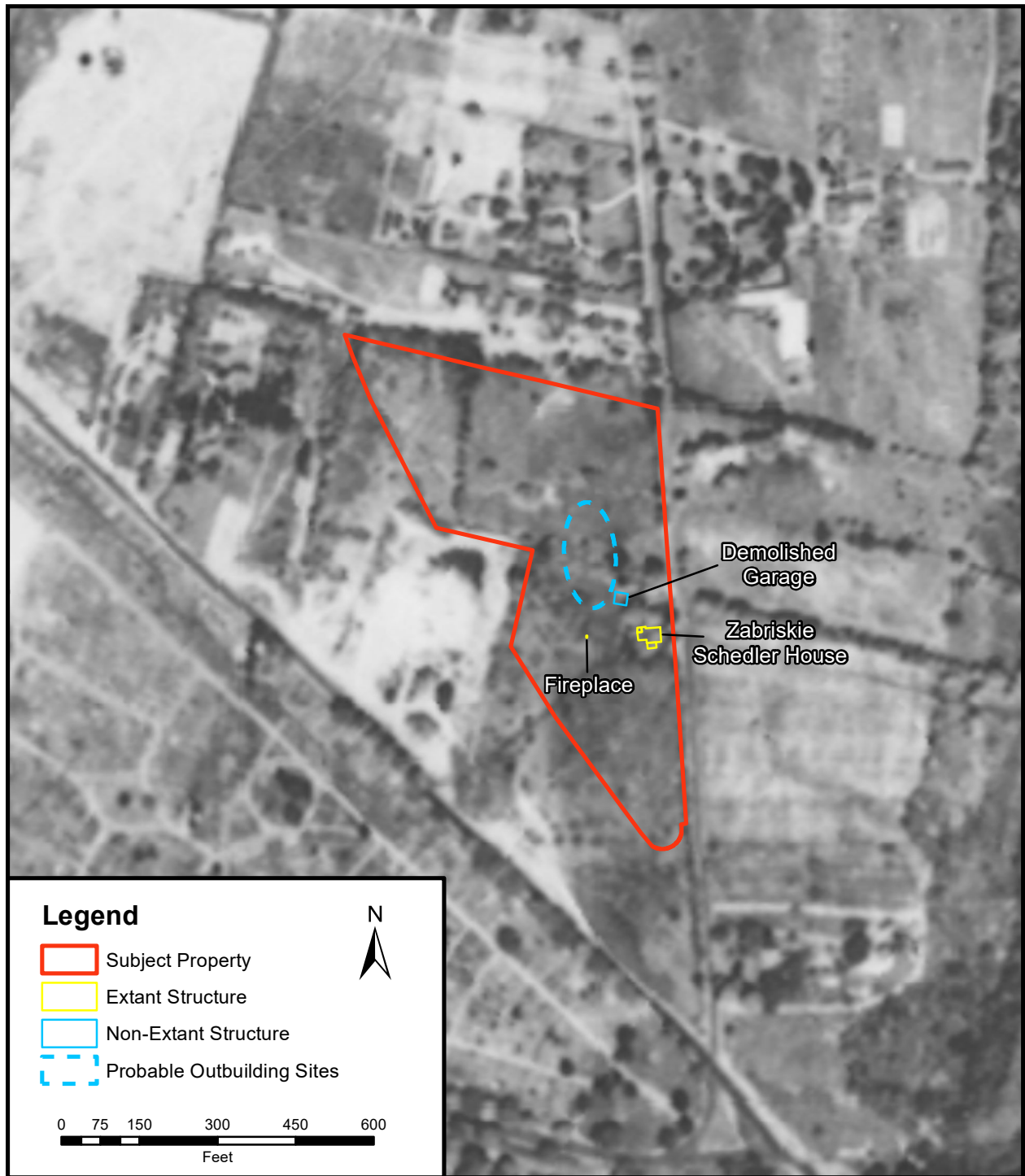


Figure 4.12. NJDEP. Detail of a historic aerial photograph of Ridgewood Village, New Jersey. 1930. Project site outlined.

Chapter 5

ARCHAEOLOGICAL FIELD INSPECTION

A half-day field visit was made to the project site on October 26, 2018 during which the project site was examined on foot. This task entailed a thorough inspection of the clearing around the Zabriskie-Schedler house and examination of the wooded areas to the north, south and west along N.J. Route 17 (Figure 5.1). Field documentation involved the taking of notes and digital photographs. No subsurface testing was performed. Weather conditions were cold and dry.

The dominant feature of the 7-acre project site is the Zabriskie-Schedler house (Photographs 5.1 and 5.2). This Dutch-American wood frame house was built *circa* 1825 with a two-story *circa* 1840 section, and two, one-story 20th-century additions. The western *circa* 1825 section has a rubble fieldstone foundation, while the eastern *circa* 1840 section is a coursed ashlar brownstone. The house is clad in 20th-century wood shingles with an asphalt shingle roof that was covered by a large tarp when the field inspection was conducted. Brick chimneys are present at the eastern and western gable ends of the house, which is situated with its eastern gable end facing West Saddle River Road and its front façade facing south. A large hickory tree and a large maple tree located just southwest and northwest of the house and overgrown evergreen shrubs surround its front porch. The site of an early 20th-century garage (now demolished) is located northwest of the house. An underground storm sewer appears to run parallel to the road within the yard just west of the street curb. No other signs of modern disturbance were noted in the immediate vicinity of the house. No surface evidence of an outhouse or well was observed.

No other buildings stand within the project site. A masonry barbeque grill was observed east of the house (Photograph 5.3) and a rough fieldstone and concrete rubble foundation or garden plot measuring 10 by 15 feet was identified northwest of the house (Photograph 5.4). The sites of the two barns identified in historic maps were inspected and piles of fieldstones were observed around the base of a few trees, but no intact elements of these buildings were identified (Photographs 5.5 and 5.6).

The wooded and overgrown area south of the house narrows quickly to the intersection of N.J. Route 17 and West Saddle River Road. The vegetation in this area consists mostly of smaller trees suggesting that this area was open until more recently (Photograph 5.7). A 4-foot-high chain link fence separates the property from a grassy verge along N.J. Route 17. West and north of the house the woods appear more established with larger trees and less underbrush. A section of this woods in the northwest corner of the property has recently been cleared of smaller trees as evidenced by freshly cut stumps and wood chips and an informal driveway from West Saddle River Road (Photograph 5.8). The band of the northwest section of the property N.J. Route 17 extending roughly 50 to 75 feet from the property edge has a severely undulating surface that appears related to the construction and maintenance of the highway (Photograph 5.9). In the northeast corner of the property, along West Saddle River Road, the property is level and lightly wooded. A stand pipe, spray-painted orange is located near this corner of the property and could indicate the presence of an underground utility (Photograph 5.10).



Figure 5.1. Aerial Photograph Showing Locations of Existing Structures and Building Sites and Direction of Photograph Views.



Photograph 5.1. View facing northeast showing the front façade of the Zabriskie-Schedler House. The one-and-half-story western wing was built circa 1825 and the two-story eastern wing was built circa 1840 (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:010]).



Photograph 5.2. View facing south showing the rear façade of the Zabriskie-Schedler House (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:042]).



Photograph 5.3. View facing east showing the masonry barbeque grill in the lawn west of the house (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:018]).



Photograph 5.4. View facing east showing the concrete rubble and fieldstone foundation or garden plot located northeast of the house. Note the large pile of redware flower pots in the upper left of the view (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:044]).



Photograph 5.5. View facing north showing the site of a barn northwest of the house. No in situ physical evidence of the barn was observed in this location (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:019]).



Photograph 5.6. View facing northwest showing roughly trimmed fieldstone around the base of a tree near the barn sites (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:020]).



Photograph 5.7. View facing south showing the wooded area south of the house. Note the chain-link fence along N.J. Route 17 in the right of the view (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:014]).



Photograph 5.8. View facing northwest showing the northwest corner of the property and recent tree cutting activity (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:030]).



Photograph 5.9. View facing west showing the disturbed, undulating topography along N.J. Route 17 (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:025]).



Photograph 5.10. View facing south showing the woods within the northeast portion of the property. A painted stand pipe is visible in the foreground and the house is visible in the background (photographer: James Lee, October 2018 [HRI Neg.#18052/D1:037]).

Chapter 6

CONCLUSIONS AND RECOMMENDATIONS

Hunter Research has completed an archaeological assessment of the Zabriskie-Schedler property. This investigation entailed background research, particularly in relation to the Revolutionary War history of the area, historic map analysis, field inspection and the production of a technical report.

The following assessment and recommendations are offered:

Precontact Archaeological Potential

A review of previously identified precontact sites registered with the New Jersey State Museum identified 26 sites within two miles of the subject property. Most of these sites were identified during the early 20th century before intensive suburban development of the area had begun. They are almost all situated along stream terraces adjacent to the Saddle River, the Hohokus Brook to the west, or the Musquapsink Brook to the east. The subject property lies just over 1,000 feet from the Saddle River and its upland character – with no prominent natural features, rock outcrops, or water sources – suggests it would have a low potential to yield significant precontact archaeology. While it may have been a location traversed or hunted by Native Americans, it is not likely to have been the location of significant precontact occupation. The occasional isolated find, such as a precontact projectile point, would not be out of the ordinary.

Colonial Period Archaeological Potential

The subject property was part of the Paramus Reformed Church property from at least 1750 onwards. The original church, built *circa* 1735, was located at the

site of the existing church, approximately 500 feet south of the Zabriskie-Schedler property. There is no indication that the property existed as anything other than undeveloped agricultural land prior to the Revolutionary War.

With its proximity to New York, Bergen County experienced military activity throughout the Revolutionary War from 1776 to 1783. Paramus' position at the crossroads of two major northern New Jersey routes gave it strategic importance and this location became a focus of military activity. The Paramus Reformed Church served variously as a barracks, hospital and prison, and General George Clinton camped at the church in December 1776 (Tholl 1974). General George Washington established his headquarters at the Paramus Reformed Church at various times and held a session of the court-martial of General Charles Lee at the church from July 11 to July 15, 1778 (Tholl 1974). A skirmish between British and Continental forces occurred at the Paramus Reformed Church in March of 1780 (Bjorklund and Hickey 2018:8-2). Finally, Moses Hazen's Regiment and the New Jersey Line camped in the vicinity of the Paramus Reformed Church during the Continental Army's march south to Yorktown in 1781 (Selig 2006). Given the proximity of the church and crossroads to the subject property, and that the property was apparently an undeveloped part of the church's land, it is considered likely that some of these wartime activities extended on to the Zabriskie-Schedler property. An archaeological survey of the property is recommended if significant ground disturbance is planned.

The archaeological expression of military activity, particularly of encampments and skirmishes, may be difficult to discern. No evidence for the construction of any substantial buildings or earthworks was iden-

tified in the site inspection, although encampments normally included features such as privy trenches and pits, which may survive as subsurface anomalies. Another archaeological expression of military activity is dropped or discarded items, such as munitions or clothing. In this instance, the best way to test for buried features, and specifically for military artifacts, is to undertake a metal detecting survey. If ground-disturbing activities are planned such a survey should be conducted under the direction of a professional archaeologist, using procedures developed by the Advanced Metal Detecting for the Archaeologist (AMDA) course offered by the Register of Professional Archaeologists (RPA). A work plan for any survey of the property should be developed in coordination with and reviewed and approved by the New Jersey Historic Preservation Office.

Historic Archaeological Potential

The first permanent historic occupation of the subject property is believed to have taken place *circa* 1825 when the first house was built. This house was expanded around 1840. A U.S. Coast Survey Map from this year shows the Zabriskie-Schedler House, along with two large outbuildings to the northwest of the house and a square orchard to the northwest of the outbuildings. While the outbuildings are assumed to be barns, the 1840 census indicates that two of the people living at the house were working in manufacturing and it is possible that the second outbuilding was used for an industrial purpose. The Bromley Atlas of 1913 shows the house and a single outbuilding, both of which are visible in a 1930 aerial photograph of the property. The last remaining outbuilding had been pulled down by the mid-1960s. The field inspection identified roughly cut fieldstone in the general location of the southern barn but did not identify an intact foundation. A small foundation of stones and concrete, probably for a shed, was identified slightly west of the barn site, while a stone and concrete fire pit was noted to the west of the house.

The relative lack of landscaping and ground disturbance observed immediately around the house (approximately 75 to 100 feet, excluding the site of the no-longer-extant garage) suggests that there is a high potential that historic archaeological deposits related to the 200-year occupation of the Zabriskie-Schedler House may survive. These deposits may take the form of trash scatters, lenses of domestic refuse (middens), filled-in privies or wells, or remains of outbuilding foundations (e.g., a smokehouse or shed). Analysis of these types of deposits could provide relevant information on the earliest date of occupation of the house and social and economic details regarding its occupants. It is more likely that these deposits would be located away from the road and to the rear and west of the house, which faces south. If extensive ground disturbance is proposed around the house archaeological survey is recommended to identify archaeological features, particularly if such disturbance will extend more than one foot below the ground surface. In particular, a Ground-Penetrating-Radar (GPR) survey of the area around the house would benefit the overall management of the property's archaeological resources, since this would likely indicate areas of archaeological sensitivity and locations of possible subsurface features.

There is also a moderate potential that remnants of the foundations of the outbuildings may survive, particularly the structure furthest to the north, which was removed earlier (and potentially by hand, thereby causing less disturbance). Excavation may throw light on the exact function of these outbuildings (e.g., livestock, storage, blacksmithing, cider making, etc.). A GPR survey and/or a metal-detecting survey, as described above, may also aid in the identification and characterization of these outbuilding sites. The area of the property outside of the immediate surroundings (approximately 100 feet) of the house and outbuildings sites has less potential to yield 19th-century domestic archaeology.



Figure 6.1. Aerial Photograph Showing Locations of Existing Structures and Building Sites and Areas of Archaeological Sensitivity.

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Appendix A

RESUMES

JAMES S. LEE, III, M.A., RPA
Vice President
Principal Investigator/Archaeologist

EDUCATION

M.A., Archaeology, University of Durham, Durham, United Kingdom, 1996

B.A., Anthropology and History, Rutgers University, New Brunswick, New Jersey, 1995

EXPERIENCE

2015-present Vice President/Principal Investigator/Archaeologist
Hunter Research, Inc., Trenton, NJ

Vice President of firm providing archaeological and historical research, survey, excavation, evaluation, report preparation and public outreach services in the Northeastern United States. Responsible for:

- Project management, budgeting and scheduling
- Technical and synthetic writing
- Proposal preparation, contract negotiation and management
- Hiring and supervision of personnel
- Supervision of research, fieldwork, analysis and report preparation

2001-2015 Principal Investigator
Hunter Research, Inc., Trenton, NJ

Technical and managerial responsibilities for survey, evaluation and mitigation of selected archaeological projects. Technical and managerial responsibility for report production. Participation in:

- overall site direction and day-to-day management
- development and implementation of research, excavation and analysis strategies for prehistoric and historic archaeological sites
- supervision of cartographic and GIS product, graphic design and report layout
- hiring and supervision of personnel

2001 Crew Chief
Kittatinny Archaeological Research, Stroudsburg, Pennsylvania

- survey and excavation
- supervision of field personnel
- stratigraphic and artifact analysis

1997-2001 Principal Investigator/Project Manager
Cultural Resource Consulting Group, Highland Park, New Jersey

- overall site direction and day-to-day management
- development and implementation of research, excavation and analysis strategies for prehistoric and historic archaeological sites
- report and proposal preparation
- hiring and supervision of personnel

- 1997-2000 Laboratory Supervisor
Cultural Resource Consulting Group, Highland Park, New Jersey
- Technical and managerial responsibilities for laboratory components of archaeological projects. Participation in:
- management of laboratory operations
 - supervision of laboratory personnel
 - computerization of artifact data
 - prehistoric and historic ceramic analysis
 - preparation of artifact inventories and writing of artifact sections of reports
- 1996-1997 Field Technician
Cultural Resource Consulting Group, Highland Park, New Jersey

SPECIAL SKILLS AND INTERESTS

- canals and associated water control structures
- waterpowered mill sites
- iron manufacture
- prehistory of the northeastern United States
- prehistoric lithic technology
- historic sites interpretation and public outreach

CERTIFICATIONS

Secretary of the Interior's Professional Qualification Standards for Archaeologists (36 CFR Part 61)
Register of Professional Archaeologists
OSHA 40-hour Initial Training, 2002
OSHA 8-hour Refresher Course, 2012

PROFESSIONAL AFFILIATIONS

Society for Industrial Archaeology
Archaeological Society of New Jersey, Member at Large
Society for Pennsylvania Archaeology
New York State Archaeological Association
Canal Society of New Jersey
Warren County Morris Canal Committee
Eastern States Archaeological Federation
Middle Atlantic Archaeological Conference

SELECTED PRESENTATIONS

"The Fishkill Supply Depot: Archaeological Synthesis" Paper presented to the Friends of the Fishkill Supply Depot, October 25, 2015.

"Archaeological Investigations at the Tulpehocken Nature Center, Abbott Marshlands, Mercer County, New Jersey." Paper presented to the Archaeological Society of New Jersey, March 21, 2015.

"The Last 100 Years at Morris Canal Plane 9 West." Paper presented to the Canal Society of New Jersey, November 21, 2014 (with James Lee Jr.).

"Ephrata Tract Archaeological Assessment." Paper presented to the Moravian Historical Society, October 20, 2014.

"Archaeological Investigations in the Shadow of the Gap, I-80 Weigh Station Site (28Wa290)." Paper presented to the Society for Pennsylvania Archaeology, Forks of the Delaware Chapter 14. April 3, 2013.

"Exploring the Industrial Archaeological Resources of Waterloo Village." Paper presented to the Canal Society of New Jersey, March 15, 2013 (with Richard W. Hunter).

"Archaeological Investigations at Morris Canal Lock 2 East, Wharton, New Jersey." Paper presented to the Canal Society of New Jersey, March 16, 2012.

"Delaware and Raritan Canal Lock #1, Hamilton Township, Mercer County, New Jersey." Paper presented to the Canal Society of New Jersey, December 1, 2010 (with Richard W. Hunter).

"The Archaeological Potential of the Morris Canal." Paper presented to the Archaeological Society of New Jersey, March 19, 2007.

"Planes and Plans: The Morris Canal in Warren County." Paper presented to the New Jersey Historic Preservation Conference, April 23, 2004.

ERYN C. BOYCE
Architectural Historian/Historian, MS

EDUCATION

M.S., Historic Preservation, University of Pennsylvania, 2015
B.A., History, Hamilton College, 2013

EXPERIENCE

June 2016-present Architectural Historian/Historian
Hunter Research, Inc., Trenton, New Jersey

Execution of research in support of historic, historic architectural and archaeological studies including:

- review of primary and secondary source materials
- title research
- genealogical investigation
- review of historic cartographic materials
- selected contributions to reports

December 2015-June 2016 Program Associate
New Jersey Historic Preservation Office, Trenton, New Jersey

- performed Section 106 reviews on above-ground projects.
- determined eligibility of resources
- studied buildings' historic contexts
- evaluated project effects

December 2015-June 2016 Intern
Heritage Consulting, Inc., Philadelphia, Pennsylvania

- conducted background research
- compiled written reports
- edited grants and strategic plans
- assisted principal during stakeholder meetings.

September 2013-June 2016 Site Assistant/Interpreter
Fonthill Castle, Doylestown, Pennsylvania

- developed, implemented, and evaluated tours, programs and special events
- led the planning and execution of annual Old-Fashioned Fourth of July event
- assisted with interviewing, training and supervision of volunteers

December 2014-March 2015 Research Assistant/Teaching Assistant
University of Pennsylvania, Philadelphia, Pennsylvania

- researched literature on identity
- teaching assistant for American Architecture class

May 2014-August 2014 Property Care Intern
Historic New England, Boston, Massachusetts

- compiled background information Eustis Estate in Milton, MA
- wrote conditions assessment report for Eustis Estate

May 2013-August 2013 Museum Education/Marketing Intern
Erie Canal Museum, Syracuse, New York

- planned, developed and implemented series of eight family programs
- designed and implemented marketing campaign for family programs

- | | |
|------------------------------|---|
| June 2012-
August 2012 | Museum Education Intern
Strawberry Banke Museum, Portsmouth, New Hampshire <ul style="list-style-type: none">• developed lesson plans for summer camp activities• worked at four summer camps and led camp activities |
| May-Aug 2011
May-Aug 2010 | Intern
Fonthill Castle, Doylestown, Pennsylvania <ul style="list-style-type: none">• gave tours• developed activities for summer camps and birthday parties |

SPECIAL SKILLS

Proficient with Microsoft Office Suite, Adobe Creative Suite and ArcGIS

Appendix B

**NEW JERSEY HISTORIC PRESERVATION OFFICE
BIBLIOGRAPHIC ABSTRACT**

APPENDIX B
New Jersey Historic Preservation Office
Bibliographic Abstract

HUNTER RESEARCH, INC.

Location:	Zabriskie-Shedler House and Property, Village of Ridgewood, Bergen County, NJ
Drainage Basin:	Saddle River
U.S.G.S. Quadrangle:	Hdackensack, N.J.
Project:	Phase IA Archaeological Assessment, Zabriskie-Shedler House and Property, Village of Ridgewood, Bergen County, New Jersey
Level of Survey:	IA
Cultural Resources:	Zabriskie-Shedler House and Property

Appendix C

PROJECT ADMINISTRATIVE DATA

APPENDIX C

Project Administrative Data

HUNTER RESEARCH, INC.

PROJECT SUMMARY

Project Name: Phase IA Archaeological Assessment, Zabriskie-Shedler House and Property, Village of Ridgewood, Bergen County, New Jersey

Level of Survey: IA

HRI Project Reference: 18052

Date of Report: February 2019

Client: County of Bergen

Prime: Connolly & Hickey Historical Architects LLC

Review Agency: NJHPO

Agency Reference: N/A

Artifacts/Records Deposited: N/A

PROJECT CHRONOLOGY

Date of Contract Award: 8/27/2018

Notice to Proceed: 8/27/2018

Background Research: September 2018

Fieldwork: October 2018

Analysis: N/A

Report Written: September 2018 - February 2019

PROJECT PERSONNEL

Principal Investigator(s): Richard W. Hunter, James Lee

Background Researcher(s): Eryn Boyce

Field Supervisor(s): N/A

Field Assistant(s): N/A

Analyst(s): N/A

Draftperson(s): Evan Mydlowski

Report Author(s): James Lee and Eryn Boyce

APPENDIX 13

Chart Describing Community Use
and Need for Athletic Fields

RJFA Letter to Field's Committee for Fall 2023

Abstract: The structure of the RJFA season is such that we have short, heavy usage of fields interspersed with periods of no field usage at all. The current field allocation does not optimize the field use—RJFA is crammed at some periods of home games, and at the same time has no mechanism to give back unused field time to other organizations. We'd like to explain our season field needs in order give back unused time and have extra space for the small number of home games.

Goal: To better describe the RJFA season to the Field's Committee members to help create optimized field schedules for the Fall Youth Sports Seasons.

Observations:

- RJFA coaches are all volunteer parents, many of whom work in the city. Ideally the practice fields are available at night, with lights to allow these coaches to continue volunteering.
- RJFA numbers have increased annually with each tackle grade comprising more than 30 players each. Flag football numbers are approaching 800 players. This high number of players has historically done excessive damage to grass fields. Since the majority of our players also play other sports outside of the football season, we are highly incentivized to keep the grass fields in the best condition possible.
- The nature of our game schedule, i.e. one game a week on the weekend, lends itself to a very high number of spectators and fans. In addition, the youth Cheer programs co locate with RJFA on game day which brings another large group of participants, families and fans.

Registration Numbers (2023 Season) :

Graduation Year	Flag Total	Flag Female	Tackle	Total
2028	80	2	35	115
2029	90	9	33	123
2030	104	20	29	133
2031	94	18	33	127
2032	92	9	28	120
2033	86	12	19	105
2034	85	18	14	99
2035	43	2	NA	43
2036	62	5	NA	62
Total	736	95	191	927

Nature of the RJFA Schedule:

Tackle:

Practice starts the 2nd week of August. Teams have practices M-F in the even for the first two weeks. The first week is acclimation, the second week is the installation of contact. Teams will schedule preseason scrimmages, according to other teams availability. The season generally starts the first week after Labor Day. During the season, our A teams (Sr, Jr, Pw) play on Saturday nights, and our B teams play on Sunday during the day. We have 4 home Saturday night games and 4 home Sunday games per season, not including playoffs.

The schedule, including home and away games, are determined by the league we play in. They accommodate us for changes we need to make for field availability. The sooner we know scheduling conflicts the easier it is for the league to accommodate. This past season we found out there was a conflict late after schedules were made, and while the league accommodated, our A teams played their first 4 games away. Then with flooding, these teams ended up playing almost all of their games away.

Once playoffs start, all the B teams seasons are over, and A teams practice needs are determined by playoff seeding. The playoffs last 2 weeks at most, assuming our teams win out. Once a team loses in the playoffs, the season is over.

Co-Ed Flag (Fall):

This year the flag season for the co-ed league (grades K-2 and grades 3-8) begins on the weekend of August 24th and goes through the weekend of October 26th (rain date on November 2nd). There are no practices during the week, only one game on the weekends. We have been doing a one-day playoff for grades 3-8 on the last day of the season for the past two years and would like to continue this tradition. We have been playing these games in the afternoon or evening on the last weekend of the season which will be the weekend of October 26th this year. After the playoff, our season is over and we can give the fields back.

During the season, the K-2 teams (approximately 180 kids) play from 8-9:30 on Saturday mornings. Grades 3/5/7 (approximately 270 kids) play from 8:00-12:00 on Saturday mornings. Grades 4/6/8 (approximately 270 kids) play from 8:00-12:00 on Sunday mornings.

Girls Youth Flag (Spring):

The girls youth program is new this year and will be running from the weekend of March 9th through the weekend of May 18th. We are planning to have one practice during the week and one game on the weekend.

Asks:

For tackle, we would like Stevens and Stadiums M-F 6:30-8:30 for first two weeks of the season. After that, we'd like Stevens M-Thursday evening and Stadium 3 nights a week for practices from End of Aug to mid November. Once playoffs start, we'd give up the second field. For Saturday night games, we'd like 4 home games, from 4-10pm. (Generally the games end by 9pm). We don't know which days home games will be scheduled so we ask for flexibility but we usually know by middle of the summer. For Sunday B games, we're requesting 4 home games on Stadium. We would also need 5 hours, however the timing for those consecutive hours is flexible (but they have to be continuous, we have the same referees for all 3 games—it's not economically viable for them to

only ref one game). The request for Stadium over Stevens is due to the high number of fans and spectators—Stevens cannot hold the crowds.

We have never hosted any playoffs games, and we're grateful our league has accommodate us. If there's an opportunity to host, that would be amazing.

For coed flag, we're requesting the same fields we have for the past several years. For K-2 we are requesting Vets South and Vets East fields from 8-9:30 on Saturday mornings from Aug 24th - Nov 2nd. For grades 3/5/7 we would like Maple field from 8-12 on Saturday mornings from Aug 24th - Oct 26th and Maple or Stadium from noon - 4pm on October 26th for the playoffs. For grades 4/6/8 we would like Stevens field from 8-12 on Sunday mornings from August 25th - October 27th and Stevens or Stadium from noon-4pm On October 27th.

For girls flag, we are requesting a turf field for two hours for one night during the week and Maple fields from 8-11 on Saturday mornings.

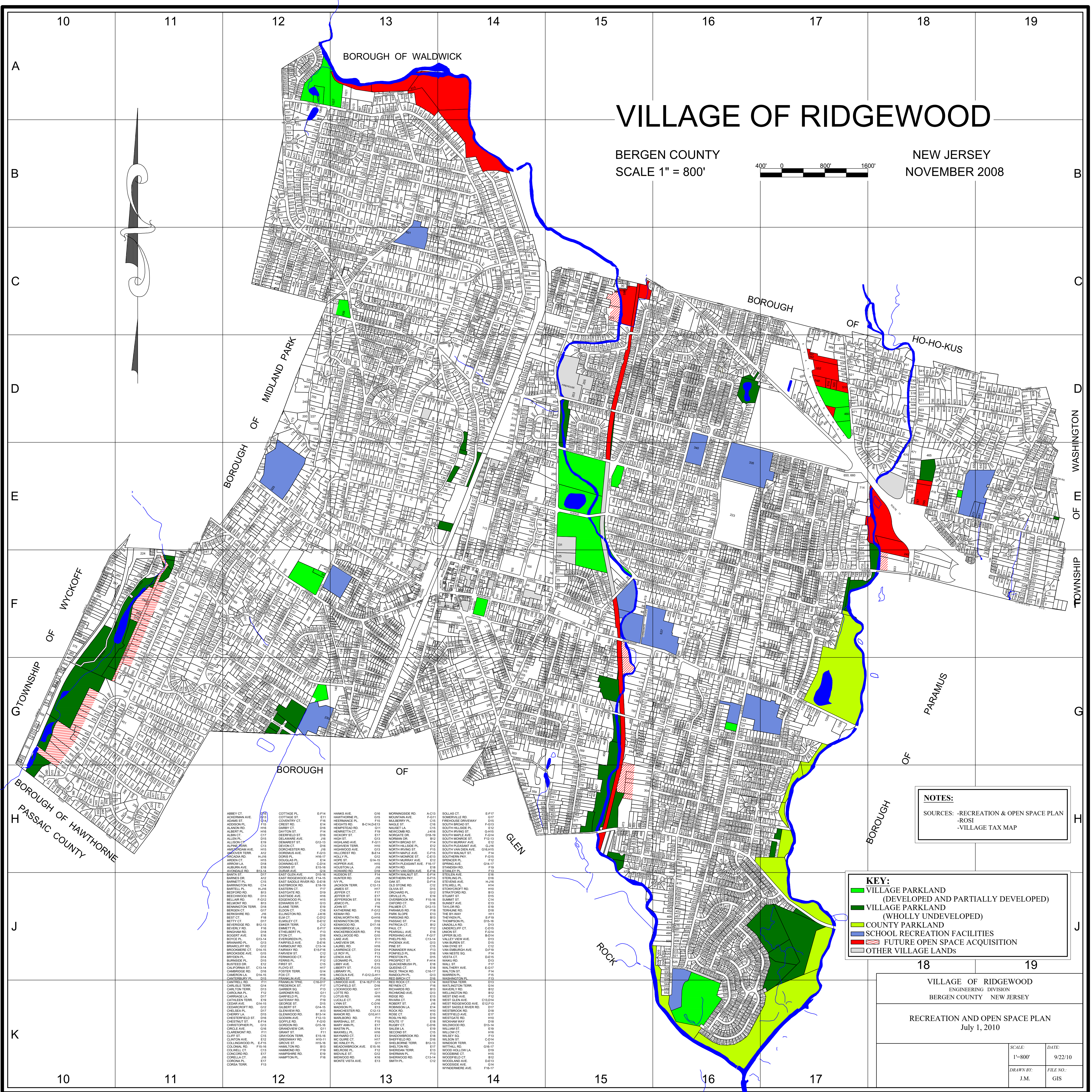
Respectfully Submitted,

RJFA Board

APPENDIX 14

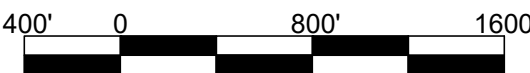
Map Showing Location of
Other Athletic Fields in Town

L:\Engineering\GIS\entire village\ROSLdvg Mon, Feb 28, 2022 - 12:22pm



VILLAGE OF RIDGEWOOD

BERGEN COUNTY
SCALE 1" = 800'



NEW JERSEY
NOVEMBER 2008

NOTES:

SOURCES: -RECREATION & OPEN SPACE PLAN
-ROSI
-VILLAGE TAX MAP

KEY:

- VILLAGE PARKLAND
(DEVELOPED AND PARTIALLY DEVELOPED)
- VILLAGE PARKLAND
(WHOLLY UNDEVELOPED)
- COUNTY PARKLAND
- SCHOOL RECREATION FACILITIES
- FUTURE OPEN SPACE ACQUISITION
- OTHER VILLAGE LANDS

VILLAGE OF RIDGEWOOD
ENGINEERING DIVISION
BERGEN COUNTY NEW JERSEY

RECREATION AND OPEN SPACE PLAN
July 1, 2010

SCALE: 1"=800'
DRAWN BY: J.M.

DATE: 9/22/10
FILE NO.: GIS

APPENDIX 15

Two Drone Flyovers of the Site
Two Recent Flyovers of Flooded Field in the Village

**Submitted Flash Drive with
Video Files in Initial Submission**

APPENDIX 16

Two Historic Preservation Office Letters
and Keith Kazmark's Responses

**Removed from Application per SHPO review letter
dated March 22, 2024**

APPENDIX 17

Support Letters

**Removed from Application per SHPO review letter
dated March 22, 2024**

APPENDIX 18

Village's Project Budget and Funds Expended to Date

PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY																	
Updated 4/10/24																	
				VILLAGE OF RIDGEWOOD													
				SCHEDLER-ZABRISKIE HOUSE, SCHEDLER FIELD													
				PROJECT PAID/CHARGED COSTS 4/10/24													
				FIELD IMPROVEMENTS/HOUSE RESTORATION													
												4/10/2024					
					HOUSE	HAZARDOUS		FINANCING	VENDOR	ORDINANCE		Adjusted Classification					
	VENDOR	ADVERTISING	PERMITS	FIELD/LAND	CONSTRUCTION	WASTE	ARCHITECT	COSTS	TOTAL	TOTALS	reclass	Net	House	Park		Purchase	Field
ORD# 3535-HOUSE																	
	DELL-TECH INC	\$ -	\$ -	\$ -	\$ 68,399.00	\$ -	\$ -	\$ -	\$ 68,399.00	-							
	CONNOLLY & HICKEY						60,000.00		60,000.00	-							
	P CARPENTER ASSO.				6,601.00				6,601.00	-							
									-	\$ 135,000.00	\$ -	\$ 135,000.00	\$ 135,000.00	\$ -		\$ -	\$ -
ORD# 3593-FIELD																	
	NJ MEDIA	508.11							508.11								
	BERGEN COUNTY SOIL		2,325.00						2,325.00								
	DTS TRUCKING			99,875.00					99,875.00								
	UNICORN CONTRACTING					90,240.00			90,240.00		(90,240.00)						
	DELL-TECH INC				57,051.00				57,051.00	249,999.11	(57,051.00)	102,708.11					102,708.11
ORD# 3644-FIELD																	
	MSB.LLC							600.00	600.00								
	CONNOLLY & HICKEY						48,900.00		48,900.00								
	DELL-TECH INC				99,850.00				99,850.00		(99,850.00)						
	DEP		650.00						650.00	150,000.00	(48,900.00)	1,250.00					1,250.00
									-								
ORD#3671-HOUSE									-								
	DELL-TECH INC				50,000.00				50,000.00	50,000.00		50,000.00	50,000.00				
	CONNOLLY & HICKEY						-		-								
ORD#3676-HOUSE									-								
	MSB.LLC							600.00	600.00	-							
	CONNOLLY & HICKEY						4,650.00		4,650.00	-							
	DELL-TECH INC				242,700.00				242,700.00	247,950.00							
	DELL-TECH INC										57,051.00						
	UNICORN CONTRACTING										90,240.00	395,241.00	395,241.00				
									-								

PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY																
Updated 4/10/24																
				VILLAGE OF RIDGEWOOD												
				SCHEDLER-ZABRISKIE HOUSE, SCHEDLER FIELD												
				PROJECT PAID/CHARGED COSTS 4/10/24												
			FIELD IMPROVEMENTS/HOUSE RESTORATION													
					HOUSE	HAZARDOUS		FINANCING	VENDOR	ORDINANCE		4/10/2024				
												Adjusted Classification				
	VENDOR	ADVERTISING	PERMITS	FIELD/LAND	CONSTRUCTION	WASTE	ARCHITECT	COSTS	TOTAL	TOTALS	reclass	Net	House	Park	Purchase	Field
ORD#3712-FIELD																
									-	-						
	MSB.LLC							683.33	683.33	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	CONNOLLY & HICKEY						28,700.00		28,700.00							
	DOWNES TREE SERVICE			36,185.00					36,185.00							
	S&P							415.21	415.21							
	NISIVOCCIA							1,660.86	1,660.86							
	PSE&G			6,417.67	6,417.68				12,835.35							
	ANS CONSULTANTS					2,000.00			2,000.00							
	Onque Technologies			129,462.75					129,462.75							
	ALMSTEAD TREE			3,847.50					3,847.50							
	Suburban Consulting		2,600.00				972.00		3,572.00	219,362.00	(28,700.00)	190,662.00				190,662.00
ORD#3746-HOUSE																
	MSB.LLC	-	-	-	-	-	-	600.00	\$ 600.00	600.00	-					
	DELL-TECH INC										99,850.00	100,450.00	100,450.00		-	-
ORD#3791-HOUSE																
									-							
	MSB.LLC							1,249.17	1,249.17							
	S&P							394.45	394.45							
	NISIVOCCIA							1,577.81	1,577.81							
	Allocate Berm				98,316.90				98,316.90							
	CONNOLLY & HICKEY						2,750.00		2,750.00							
	In House Engineering		66,914.22						66,914.22							
	In House Engineering		38,085.78						38,085.78							
ORD#3792-FIELD																
									-	209,288.33	83,435.00	292,723.33	292,723.33			
	MSB.LLC							5,089.72	5,089.72							
	CONNOLLY & HICKEY						5,835.00		5,835.00							
	ACACIA FINANCIAL							6,357.00	6,357.00							
	NJ MEDIA	187.70						-	187.70			-				-
	ONQUE TECHNOLOGIES			245,792.25					245,792.25			-				-
	Allocate Berm			(98,316.90)					(98,316.90)							
	ALMSTEAD TREE & SHRUB CARE			1,375.00					1,375.00							
	NISIVOCCIA LLP							906.50	906.50							
	IN HOUSE ENGINEERING		6,633.90						6,633.90							
	Richard Grubb			53,778.00					53,778.00							
	Suburban Consulting Engineers		10,500.00						10,500.00							
	In House Engineering		19,725.16						19,725.16	257,863.33	(5,835.00)	252,028.33				252,028.33

PRELIMINARY DRAFT-FOR DISCUSSION PURPOSES ONLY																
Updated 4/10/24																
				VILLAGE OF RIDGEWOOD												
				SCHEDLER-ZABRISKIE HOUSE, SCHEDLER FIELD												
				PROJECT PAID/CHARGED COSTS 4/10/24												
				FIELD IMPROVEMENTS/HOUSE RESTORATION												
												4/10/2024				
												Adjusted Classification				
	VENDOR	ADVERTISING	PERMITS	FIELD/LAND	CONSTRUCTION	HAZARDOUS WASTE	ARCHITECT	FINANCING COSTS	VENDOR TOTAL	ORDINANCE TOTALS	reclass	Net	House	Park	Purchase	Field
ORD#3854-HOUSE-INTERIOR RENO	DELL-TECH INC.				759,275.00				759,275.00		\$ -					
	PROGRESSIVE BRICK CO					5,000.00			5,000.00							
	PRIMAVERA PARTNERS				8,600.00				8,600.00	\$ 772,875.00		\$ 772,875.00	\$ 772,875.00	\$ -	\$ -	\$ -
ORD#3951	PARK IMPROVEMENTS															
	MCNERNEY & ASSOCIATES				3,500.00				3,500.00							
	NJDEP				70.00				70.00							
	MILLER-RINALDI & ASSO.				2,750.00				2,750.00							
	PETER PRIMAVERA				25,350.00				25,350.00							
	RICHARD GRUBB				49,517.00				49,517.00							
	DUNN SURVEYING				4,675.00				4,675.00							
	SIGNS BY LYNN				500.00				500.00							
	MATRIX NEW WORLD				38,330.00				38,330.00	124,692.00				124,692.00		
TOTAL		\$ 1,195.81	\$ 194,434.06	\$ 564,208.27	\$ 1,388,610.58	\$ 97,240.00	\$ 151,807.00	\$ 20,134.05	\$ 2,417,629.77	\$ 2,417,629.77	\$ -	\$ 2,292,937.77	\$ 1,746,289.33	\$ 124,692.00	\$ -	\$ 546,648.44
ORD#3163-PURCHASE									2,898,712.29	2,898,712.29					2,898,712.29	
ORD#3346-PURCHASE									99,925.39	99,925.39					99,925.39	
									\$ 5,416,267.45	\$ 5,416,267.45						
												\$ 5,416,267.45	\$ 1,746,289.33	\$ 124,692.00	\$ 2,998,637.68	\$ 546,648.44
	Berm Allocation			40%	60%											
	Heather email 2/22/23			House	Field			Litigation:								
	Jovan measurements	Linear Feet	1,140	456	684	Proof										
	OnQue Tech cost for berm		\$ 245,792.25					The Village has resolved a claim against a contractor that was awarded a bid for the planting of trees and installation of a water source on the property.								
	Cost per LF		215.61	\$ 98,316.90	\$ 147,475.35	\$ 245,792.25		The resolution is the planting of additional trees and confirming the competency of the water main.								

APPENDIX 19

Statement About No Wetlands from Village Engineer



VILLAGE OF RIDGEWOOD
BERGEN COUNTY, NEW JERSEY
DEPARTMENT OF PUBLIC WORKS

DEPARTMENT OF PUBLIC WORKS
Christopher J. Rutishauser, PE, CPWM
Village Engineer, Director of Public Works

131 N. MAPLE AVENUE
RIDGEWOOD, NEW JERSEY 07450
PHONE: (201) 670-5500, Ext. 2238
FAX: (201) 670-7305

Via Email and First Class Mail

November 29, 2023

Peter Primavera
Peter Primavera Partners, LLC
P.O. Box 2938
Westfield, New Jersey 07090

RE: **Lots 9, 10, 11, and 12, Block 4704**
Zabriske - Schedler Site Development
Village of Ridgewood
File No. 23030

Dear Mr. Primavera:

As requested, we investigated and examined the referenced property for the presence of conditions conducive to "wetlands". The following were noted:

- Observations of the site soils do not indicate any hydric soils that are sufficiently wet to support the growth and regeneration of hydrophytic vegetation such as Skunk Cabbage (in the springtime).
- The NJ-GeoWeb printout for the site area does not show any wetlands. The nearest identified wetlands are approximately 0.16 miles to the east from the site near the Saddle River. Copy of printout attached.
- Site elevations based on NAVD'88 are generally between +105.00 and +112.00, exclusive of the site soil berm.
- Observations of site utility trenching (in the presence of a historic archeologist) did not note any soil mottling.
- Preliminary geotechnical investigations performed in 2015 indicated that site soils consisted of tan-brown fine to coarse sands, little fine glacial gravel, trace silt, interspersed with thin clayey lenses. Such localized clayey lenses can impede site drainage through the otherwise highly permeable soils at the site.
- There are no sources of water into the reference site other than rainfall runoff.

Based on my observations, the referenced site conditions do not support wetlands.

If you have any questions or require additional information, please feel free to email me at:
crutishauser@ridgewoodnj.net

Very truly yours,

Christopher J. Rutishauser, P.E., CPWM
Director of Public Works/Village Engineer

C: Keith Kazmark, Village Manager

APPENDIX 20

OPRA Requests

**Removed from Application per SHPO review letter
dated March 22, 2024**

APPENDIX 21

Turf Justification

Turf Justification:

Ridgewood, New Jersey has had an athletic playing field deficit for decades. With increased flooding around three of our main fields, increased participation in recreational and competitive sports, and a growing mental health problem, that deficit has become more pronounced and detrimental in recent years. When all Ridgewood fields are operational, our current inventory of fields is still inadequate, overused and overburdened. Moreover, our grass fields are seldom at their best and often unusable. Ridgewood simply does not have the capacity to maintain and water our grass fields. That combined with the need to maximize use of our fields despite that grass fields can sustain only limited use, often leads to our grass fields being unsafe, uneven, dry, and/or dusty. Other towns have refused to allow their teams to play on certain of our grass fields for safety concerns. Adult participants refuse to play on our grass fields for safety concerns. To make matters worse, after rainstorms, which occur now with increasing frequency, most or all of our grass fields are typically closed for several days to avoid their being destroyed for entire seasons if played on right after a rainstorm. Games scheduled on grass fields are often cancelled at the first sign of rain. Even our best grass fields are typically unsuitable for high level sports or adult sports. Turf solves all of these issues. It is much easier (and more economical) to maintain. It maximizes the time participants can use the field -- a turf field can be used effectively non-stop, rain or shine. Consistent use does not tear up a turf field or otherwise create unsafe playing conditions. Instead, a turf field provides a consistently clean, even surface that is safer for all ages and allows for any level of competition from recreational to competitive. A turf field also may be lined for use by any number of sports. Even aesthetically turf is more appealing since it always maintains a green, manicured appearance, whereas our grass fields are often bare, dry and/or dusty. Finally, with advances in turf, we can use an infill without crushed rubber and without past concerns over generation of excessive heat. Simply put, uniformly and for a long list of reasons, turf is the only practical solution for a new field in Ridgewood.

APPENDIX 22

Precedent for Turf Fields at Historic Sites

ORDER ON MOTION

IN THE MATTER OF
HAWTHORNE BOROUGH, PASSAIC COUNTY
GOFFLE BROOK PARK SYNTHETIC TURF
FIELD
GOFFLE BROOK PART (SR: 8/29/2002)

SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
DOCKET NO. A-004347-16T4
MOTION NO. M-008393-16
BEFORE PART S
JUDGE(S): THOMAS V. MANAHAN
ROBERT J. GILSON

MOTION FILED: 07/28/2017

BY: BOARD OF CHOSEN FREEHOLDERS OF
THE COUNTY OF PASSAIC

ANSWER(S)
FILED:

SUBMITTED TO COURT: August 17, 2017

ORDER

THIS MATTER HAVING BEEN DULY PRESENTED TO THE COURT, IT IS, ON THIS
21st day of August, 2017, HEREBY ORDERED AS FOLLOWS:

MOTION BY MOVANT

MOTION TO INTERVENE PERMITTING THE
BOARD OF CHOSEN FREEHOLDERS TO
FORMALLY OPPOSE A MOTION FILED BY
THE BOROUGH OF HAWTHORNE AND FILE
OPPOSITION TO THE APPEAL

GRANTED

SUPPLEMENTAL:

FOR THE COURT:



THOMAS V. MANAHAN, J.A.D.

SR: 8/29/2002
KAK

IN THE MATTER OF HAWTHORNE
BOROUGH, PASSAIC COUNTY GOFFLE
BROOK PARK SYNTHETIC TURF FIELD
GOFFLE BROOK PARK (SR: 8/29/2002)

SUPERIOR COURT OF NEW JERSEY
APPELLATE DIVISION
Docket No. A-004347-16T4

CIVIL ACTION

On Appeal From:
Decision of the Commissioner
Of the DEP dated 5/11/2017

APPELLANT, BOROUGH OF HAWTHORNE'S BRIEF

MICHAEL J. PASQUALE, ESQ.
(ID# 020861986)
146 Rea Avenue
Hawthorne, New Jersey 07506
(973) 423-0909
mpasquale@mpasqualelaw.com
Attorney for Appellant,
Borough of Hawthorne

On the Brief: Michael J. Pasquale, Esq.

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TABLE OF AUTHORITIES

<u>Application of North Jersey Dist. Water Supply Commission, 175 N.J. Super 167 (App. Div. 1980)</u> . . .	21
<u>Beattystown Community Council v. Department of Environmental Protection, 313 N.J. Super 236 (App. Div. 1998)</u> . . .	22
<u>In re Project Authorization Under New Jersey Register of Of Historic Places Act, 408 N.J. Super 540 (App. Div. 2009)</u> . . .	22, 23
<u>In re Taylor, 158 N.J. 644, 656 (1999)</u> . . .	21
<u>University Cottage Club of Princeton, New Jersey Corp. v. New Jersey Department of Environmental Protection, 191 N.J. 38, 48 (2007)</u> . . .	21
 <u>Statutes:</u>	
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N.J.S.A. 13:1B-15.110 (c) . . .	15
N.J.S.A. 13:1B-15.128 . . .	13
N.J.S.A. 13:1B-15.131 . . .	13, 14
 <u>Administrative Code:</u>	
N.J.A.C. 7:4-7.2 (c) . . .	14
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N.J.A.C. 7:4-7.2 (e) (9) . . .	20

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PRELIMINARY STATEMENT

This matter comes before the Court on appeal from a determination by the Department of Environmental Protection authorizing the installation of a synthetic turf field in historic Goffle Brook Park. The Park, listed on the National and State Register of Historic Places, is located entirely in the Borough of Hawthorne, the appellant in this matter. The park is owned by the County of Passaic as part of its County Park System.

The Borough of Hawthorne is a community of 18,000 people living in 3.2 square miles. In the center of the Borough is Goffle Brook Park, which fairly well runs from one end of town to the other. It has a pond and traces a brook. It has rolling hills and is a 103 acre swath of green in a busy suburban community.

The Park was designed by the Olmsted Brothers, the sons of Frederick Law Olmsted, the father of Landscape Architecture in this County. It has historic significance as home to Native Americans of the Lenni Lenape Tribe and as an encampment site for the General Marquis de Lafayette and Major Henry "Light Horse Harry" Lee during the American Revolution. It was designed by a Master Landscape Architect during the Great Depression as part of several relief programs. It has a rightful place on the Register of Historic Places.

In 2013 the County of Passaic undertook a multi-year, multi-million dollar restoration of the Park. With painstaking attention to detail, it restored the park to its original Olmsted design. The result is breathtaking, a place of great pride in the community. And when all of this work was done, the County of Passaic determined to install a synthetic turf field where there existed a loosely lined grass field, used occasionally for football or pick-up soccer games.

This appeal does not focus on the wisdom of the County in undertaking a project that so violates the sanctity of this beautiful, historic place. It instead focuses on the abject failure of the agency charged to protect the historic, architectural and cultural heritage of this State, the New Jersey Department of Environmental Protection. Because the Park is listed in the Historic Register, the County was compelled to seek project approval from the State Historic Preservation Office. That Office got it right. It ruled that the installation of a turf field would constitute an "encroachment" impacting the historic integrity of the Park. It disallowed the project to be undertaken.

The County sought what amounts to an exception from the Commissioner of the DEP and appeared before the Historic Sites Council, the statutorily designated advisor to the Commissioner. The Council dead-locked, 2-2, on the adoption of a resolution

endorsing the project. It also did that what it was charged to do and protected the integrity of this historic place.

Yet even before the Council considered the matter, the Assistant Commissioner delegated to decide the matter, Richard Boornazian, had determined to approve the application. With a single stroke he over-turned the determination of the Historic Preservation Office and paid no heed to the advice offered by the Historic Sites Council. He granted project approval without any adherence to the statutory scheme designed to protect and preserve our history or heritage. That is the sole focus of this appeal - review of the arbitrary and unreasonable decision made by the Assistant Commissioner of the DEP, who failed to articulate any factual or legal basis for his determination to permit an encroachment in a historic park.

PROCEDURAL HISTORY

Goffle Brook Park in the Borough of Hawthorne is listed on the Register of Historic Places of the State of New Jersey and the National Register of Historic Places, a designation attained in 2002. [Pa 1]. It is owned by the County of Passaic. In January of 2016, not long after it completed a multi-million dollar restoration of the park to its original Olmsted Brothers design, the County finalized plans for the installation of a synthetic turf field where once there was located a casting pond. [Pa8] As the field to be constructed was to be located within feet of Goffle Brook, the County applied for a Flood Hazard Area Individual Permit [Pa18] and a Freshwater Wetlands General Permit. [Pa244].

The Mayor and Council of the Borough of Hawthorne from the outset opposed the project proposed by the County as being incongruous with the historic nature of the park. It argued that the installation of synthetic turf field would constitute an "encroachment" as defined by law. [Pa249]. The DEP acknowledged receipt of the objection of Hawthorne. [Pa250]. Shortly thereafter, on December 2, 2016, the State Historic Preservation Office, an arm of the DEP, advised the County that as Goffle Brook Park was listed on the Register of Historic Places, it would need to submit an Application for Project Authorization to that office for consideration. The letter sent to the County stated, "The intent of the New Jersey Register Law is to ensure that New Jersey

Register listed properties and districts are protected from potentially harmful public action." [Pa252]

The County submitted an application as required. [Pa255]. The DEP requested additional information, [Pa292], which was provided by the County. [Pa294]. The Municipal Council of the Borough of Hawthorne adopted a Resolution, dated February 15, 2017, imploring the County to reconsider this ill-conceived idea and asking the DEP to consider the significant negative impact of the application on the integrity of this historic park. [Pa297].

The State Historic Preservation Office concurred with Hawthorne's assessment and ruled that the installation of a synthetic turf field would constitute an "encroachment." [Pa298]. In its letter of March 22, 2017, denying project authorization, the Council stated:

"I am in receipt of an application for project authorization for the proposed synthetic turf field located within Goffle Brook Park, which is listed on the New Jersey Register of Historic Places (NJRHP). Your application was deemed technically complete and professionally sufficient upon the receipt of additional requested information on March 2, 2017. The project involves the replacement of an existing grass football field with a multi-use Field Turf synthetic turf field. The alteration of a portion of the park and introduction of a significant new visual intrusion will alter the setting and integrity of Goffle Brook Park. The project does not meet the *Secretary of the Interior's Standards for Treatment of Historic Properties - Rehabilitation* and therefore, pursuant to N.J.A.C. 7:4-7.4, this project **constitutes an encroachment** on Goffle Brook Park. (Emphasis in original).

The County was undeterred by the ruling of the State Historic Preservation Office and requested a direct ruling from the Commissioner, allowing the project to go forward despite the determination that it would constitute an encroachment. After making small, rather insignificant changes to the plan, it pressed forward with the project. [Pa300]. The matter was listed on the Agenda of the New Jersey Historic Sites Council on April 21, 2017. [Pa301]. The Council, which acts as advisor to the Commissioner, was provided in advance of the meeting with a proposed resolution endorsing the project. [Pa302] The Historic Sites Council, by a 2-2 vote, declined to adopt the resolution and endorse the project. [Pa307]. As such, the matter went to the Commissioner without recommendation.

The Hawthorne Mayor and Council, as well as its State Senator, Bob Gordon, continued to oppose the project and filed written objection. [Pa321, Pa323, Pa326] The Commissioner delegated the determination to Assistant Commissioner Rich Boornazian. He emailed the Administrative Assistant to the Mayor on May 6, 2017, [Pa325], his candid words reading as follows:

I am the Assistant Commissioner for Natural and Historic Resources and this matter will fall on me for a decision.

The State Historic Preservation's staff have prepared a package for me to review and I will have time over the weekend to look at it. I will consider all sides, testimony, positions, etc. however, **I must warn you that I was briefed on the project before it went to**

the Historic Sites Council and at that time, I was in favor of our staff's recommendation to approve the project on the County property.

Again, and I am sorry to be so blunt, but I am very likely to approve the project once I review the package as it will be consistent with other matters involving artificial turn (sic) brought before the council and the mitigation is reasonable.

(Emphasis Added).

The matter being effectively decided even before receiving the required advice and recommendation of the Historic Sites Council, Mr. Boornazian authorized the project by letter dated May 11, 2017. [Pa328]. He imposed three "mitigating" conditions:

- Installation of three signs highlighting the history of the park;
- Display of a reproduction of the original Olmsted plans in the Rea House, located in the Park;
- Creation of an amendment to the County's Parks, Recreation and Open Space Master Plan.

The Municipal Council authorized Court action. [Pa331]. Before doing so, the Mayor wrote again to the Commissioner, asking that he reconsider the determination. [Pa332]. The County of Passaic, despite widespread public opposition, refused to yield and on May 31, 2017, transmitted acceptance of the conditional approval to the DEP. [Pa334]. It immediately solicited bids for the project and undertook the construction without delay.

The Borough of Hawthorne filed this appeal of the determination of Assistant Commissioner Boornazian and as part of its submission, requested the grant of a stay of approval pending

determination by the Court. It wrote the Commissioner on September 1, 2017 seeking a stay. [Pa341]. Assistant Commissioner Boornazian denied the request for a stay of his own decision and the request to reconsider his decision on September 18, 2017. [Pa 343]. The Appellate Division thereafter denied Hawthorne's request for a stay. [Pa346].

STATEMENT OF FACTS

The Borough of Hawthorne consists of 3.2 square miles and is home to 18,000 residents. [Pa338]. Through the center of the town, virtually running from one end to the other, is Goffle Brook Park. [Pa338]. Goffle Brook Park, which is owned by the County of Passaic, was dedicated as a public park in the early 1930's. [Pa338]. Its designers were the Olmsted Brothers, the sons of Frederick Law Olmsted, the Father of Landscape Architecture in this County. Their father is best known for designing Central Park in New York and Golden Gate Park in California. The Olmsted Brothers, like their father, designed hundreds of parks, estates and university campuses. They were visionary designers and properly called the First Family of Landscape Design. [Pa338].

In 2013, the County of Passaic undertook a multi-year, multi-million dollar restoration of the Park. Tremendous attention to detail was paid every step of the way. The Goffle Brook was re-aligned to follow its original course. Walking paths were installed across the rolling hills. Hundreds of invasive tree and plant species were removed and replaced with over 400 new trees and over 500 bushes and shrubs native to the region. The restoration was completely faithful to the Olmsted Brothers design. [Pa338].

Then, when all the work was done, the restoration complete, the County of Passaic decided to install a synthetic turf field.

Not just any field. A multi-purpose field with permanent stripes, white, yellow and blue. And if the affront to the visionary designers and residents was not sufficiently made with synthetic turf and multi-colored stripes, the County decided to indelibly brand the Park, placing the County Seal at midfield. [Pa8].

Goffle Brook Park is listed on the National and State Register of Historic Places. [Pa1]. It was home to two groups of Native Americans of the Lenni Lenape Tribe. [Pa1]. The Park was an encampment site of General Marquis de Lafayette during the American Revolution. Stationed nearby, assigned to protect his southern flank, was the renowned Virginia Cavalry of Major Henry "Light Horse Harry" Lee. [Pa1]. The Park retains remnants of the Ryerson House, built in the early 1700's, and is home to the historic Rea House, built in the early 1800's. The County plans to restore the Rea House, committing \$1.5 million to the project.

The Olmsted design always envisioned recreation. The 1928 commentary provided by the firm depicted the Park as "spacious, gentle in topography, pastoral in landscape character and fitted with a variety of recreational activities and out-of-door enjoyment." There are baseball fields depicted on the plan and a loosely lined football field existed where the County of Passaic proposed to install a synthetic turf field. What is clear from the Olmsted design, and the faithful restoration by the County, is

that recreation was always secondary, informal, consistent with the pastoral theme.

Because the park is listed on the Register of Historic Places, the County was required to obtain approval from the New Jersey Department of Environmental Protection, Historic Preservation Office before undertaking the project. [Pa252]. The Mayor and Council of the Borough of Hawthorne, with unanimity across party lines, opposed this project as being "antithetical" to the "historic integrity" of the Park. [Pa297].

The Historic Preservation Office ruled that a synthetic turf field would constitute an "encroachment" on historic Goffle Brook Park. [Pa298]. It ruled that a synthetic turf field would represent a "significant new visual intrusion" which would "alter the setting and integrity of Goffle Brook Park." [Pa298]. That determination has never been challenged.

That determination did not deter the County from going forward. It sought what amounts to an exception from the Commissioner. The matter was referred to the Historic Sites Council (HSC) which considered the matter at its April 21, 2017, meeting. [Pa301]. The HSC received a proposed resolution, prepared by DEP staff, recommending approval of the project. [Pa302]. The HSC declined to adopt the resolution, dead-locking 2-2. [Pa307]

The matter went to the Commissioner without recommendation. The Commissioner delegated the decision to Assistant Commissioner

Rich Boornazian. On May 6, 2017, Assistant Commissioner Boornazian informed the Office of the Mayor of the Borough of Hawthorne that he had been "briefed" on the matter by DEP Staff and had been in favor of the project "even before it went to the" HSC. He advised he was likely to approve the project prior to review of the "package" provided to him. [Pa325]. Not surprisingly, he did so on May 11, 2017. [Pa328]. The County accepted the project authorization and with rather incredible speed completed this \$1,000,000 project in a matter of months.

LEGAL ARGUMENT

**THE DECISION OF THE ASSISTANT COMMISSIONER OF THE DEP WAS
ARBITRARY AND CAPRICIOUS AND MUST BE OVERTURNED BY THIS COURT
(Raised Below: PA328)**

As noted throughout, Goffle Brook Park is listed on the State of New Jersey Register of Historic Places. The Register was created to protect and preserve places having significant, "historical, archeological or cultural value." N.J.S.A. 13:1B-15.128. The Register of Historic Places is part of the Division of Parks and Forestry in the Department of Environmental Protection, (DEP).

Because Goffle Brook Park is listed on the Register of Historic Places, no project can be undertaken in the Park absent written approval of the Commissioner of the DEP. The statutory framework finds home in a single paragraph at N.J.S.A. 13:1B-15.131. That statute reads:

"The State, **a county**, municipality or an agency or instrumentality thereof **shall not undertake any project which will encroach upon, damage or destroy any area, site, structure or object included in the Register of Historic Places without application to, and the prior written authorization or consent of the Commissioner of Environmental Protection.** The Commissioner shall solicit the advice and recommendations of the Historic Site Council in connection with any such application and may direct the conduct of a public hearing or hearings thereon prior to granting or denying authorization or consent. The failure of the Commissioner to authorize consent or deny any such application within 120 days of application therefore shall constitute his consent thereto." (Emphasis added).

The first step in the process is the filing of an application to determine whether or not the work proposed is in fact an encroachment. By letter dated March 22, 2017, the DEP Historic Preservation Office found that the project would indeed "alter the setting and integrity" of the Park and would be in violation of the Secretary of the Interior's Guidelines. It found that it would be an "encroachment."

The process undertaken by the DEP faithfully followed the corresponding Administrative Code provision. N.J.A.C. 7:4-7.2 (c) provides that a technically and professionally complete application submitted pursuant to N.J.S.A. 13:1B-15.131 shall be reviewed "to determine if the undertaking for which the application is submitted constitutes an encroachment or will damage or destroy the historic property under the criteria set forth in N.J.A.C. 7:4-7.4 and the Secretary of the Interior's Standards for the Treatment of Historic Properties."

The determination of the DEP was supported by the record, explained in the letter issued by the DEP and relied upon a clear standard, the Secretary of the Interior's Standards for the Treatment of Historic Properties. The determination has never been challenged by the County of Passaic. This stands in stark contrast to the course followed by the DEP thereafter, which failed to adhere to the statutory and administrative code strictures.

Once a project is determined to constitute an encroachment, it may not proceed absent the grant of project approval by the Commissioner. The Administrative Code sets forth an exacting protocol to be followed by the applicant which includes the delivery of 12 copies of the project plans to the Department, notice to affected governing bodies, notice to any established Historical Societies, a public appearance before the Historic Sites Council, and the publication of notice in two newspapers. N.J.A.C. 7:4-7.2(e).

The letter of March 22, 2017, advises that the project "has been added to the April 21, 2017, Historic Sites Council (HSC) agenda." The letter paraphrases the language of the statute, set forth above, which requires the Commissioner to seek "advice and recommendations" from the Council.

The establishment of the Historic Sites Council is found at N.J.S.A. 13:1B-15.108. The Statute provides for an 11 member board that acts as an advisor to the Commissioner. It is specifically charged with acting to safeguard historic sites and places in accordance with established standards for their preservation. N.J.S.A. 13:1B-15.110(c).

The solicitation of advice from the Historic Sites Council is not optional. It is mandatory. When the HSC convened its meeting

on April 21, 2017 only four members were present.¹ While the statute does not speak to a required number of members to constitute a quorum, four out of eleven is most likely not what the legislature would have considered as the right number. Robert's Rules of Order provides that a quorum for any assembly is "such number as is competent to conduct its business. Unless there is a special rule on the subject, the quorum of every assembly is a majority of all of the members of the assembly." Robert's Rules of Order, 1893 Edition, Section 43. (Jove Books, 1967).

The HSC is obligated to follow the Secretary of the Interior's Guidelines in conducting its review. N.J.A.C. 7:4-7.2(e) (6). It is required to submit a written recommendation to the Commissioner. N.J.A.C. 7:4-7.2(e) (7). It did none of that. The HSC deadlocked 2-2. At the end of the day, no recommendation whatsoever was made to the Commissioner, despite a statutory requirement mandating such action.

The HSC considered a draft resolution, prepared by DEP staff, as is provided for at law. The resolution begins with a single paragraph describing the Park, omitting its historic significance before and during the American Revolution. While it mentions design by the Olmsted Brothers, it fails to describe the multi-

¹ The meeting minutes reflect a six member body but the statute mandates an 11 member body.

year, multi-million dollar project the County had just completed, specifically undertaken to restore the original Olmsted design.

The resolution goes on to describe the public purpose to be served - recreation - but fails to explain the justification for the change from grass to synthetic turf other than to note that the grass field is hard to water. Unintentionally embedded in the resolution is a line, "The existing grass field is used for football games, and informally by residents for other sports and activities." (Emphasis added). This is the essence of the Park, the genius of the Olmsted design. The Park was created for the people and never intended for stadium use. It was always informal - organized little league mixed with scattered pick-up games.

The description of the proposed synthetic turf field in the resolution, juxtaposed with the loosely lined, irregularly shaped football field that it was to replace, further highlights the magnitude of the encroachment. The County plan proposed permanent white lines for football, yellow lines for soccer and blue lines for lacrosse. And if that visual impact was not jarring enough, the Seal of the County of Passaic would be emblazoned in the center of the field. That DEP Staff could for one minute consider this appropriate in an Olmsted designed historic park is, in a word, embarrassing.

The failure of DEP Staff and its ill-conceived resolution is most prominently found in its abject failure to consider the

encroachment in the context of the statutory and administrative framework. N.J.A.C. 7:4-7.2(d) (6) requires that the identified public benefit must be evaluated utilizing two specific criteria:

1. Whether or not feasible and prudent alternatives to the encroachment exist; and

2. Whether or not sufficient measures could be taken to avoid, reduce or mitigate the encroachment.

There is simply no analysis in the resolution, and none at any point along the line, using the mandated criteria. For if one was to consider the question, "Is there a feasible and prudent alternative to a synthetic turf field that still provides the public benefit of recreation and requires no mitigation whatsoever," one would reach the obvious answer - "a grass field."

It is small wonder that the HSC failed to adopt the resolution and failed to give endorsement to the project. The advisors to the Commissioner were simply not convinced. Yet the County remained undeterred, perhaps knowing all along that the man charged with making the decision on behalf of the Commissioner, Rich Boornazian, had long ago decided in its favor. Mr. Boornazian made this clear in his email correspondence of May 6, 2017:

"I must warn you that I was briefed on the project before it went to the Historic Sites Council and at that time, I was in favor of our staff's recommendation to approve the project on the County property."

It begs the question - If the Commissioner is obligated to gain the advice and written recommendation of the HSC before rendering his decision, why is he being "briefed" and in his own words, "likely to approve the project," before hearing from his statutorily designated advisors. The process set forth in the Statute and in the Code makes no mention of informal "briefings." In fact, it is a rather formal process, requiring legal notice, a right of the public to be heard, and recorded proceedings in conformity with the Open Public Meetings Act. The decision of the Commissioner is deemed to have authority comparable to the authority of a Superior Court Judge - hence the appeal to the Appellate Division. Imagine a Judge of the Superior Court announcing to a party, "I already know how I am likely to rule and pretty much made up my mind before hearing testimony." That is precisely what happened here.

Beyond pre-judging the project, the Assistant Commissioner completely failed to consider the application in the context of the Code. In his email, Mr. Boornazian says the project will be "consistent with other matters involving artificial turf brought before the Council and the mitigation is reasonable." The Code makes no mention of comparison to other turf field applications.

In his letter of May 11, 2017, Mr. Boornazian simply pays lip service to the Code and gives absolutely no basis for his decision to approve the project. He states, "I have evaluated the

undertaking's public benefit; prudent and feasible alternatives; and measures taken to avoid, reduce, or mitigate the encroachment." He does not identify the public benefit, gives no hint as to what prudent or feasible alternatives exist or were considered and then simply "cut-and-pasted" the three conditions from the rejected resolution as mitigating factors. He even appended the resolution to his letter.

The Administrative Code does not suggest for one minute a pre-determined outcome. It vests great power in the Commissioner but requires strict adherence to process. The Commissioner is required to consider the written recommendation of the HSC. N.J.A.C. 7:4-7.2(e) (7). The Commissioner is authorized to conduct hearings and take testimony from proponents and opponents to the application. N.J.A.C. 7:4-7.2(e) (8). Most significantly, the Commissioner is required to issue a "written decision with specific reasoning" in granting or denying the project approval. N.J.A.C. 7:4-7.2 (e) (9). None of that happened here.

The decision of the Assistant Commissioner, completely unsupported and devoid of all analysis under the Statute and Administrative Code, also stands in stark contrast to the carefully considered evaluations found in relevant Case Law. While cases interpreting the statute and code are sparse, and seemingly support the decision of the Commissioner in each instance, they are informative.

It is understood that the role of a reviewing Court considering an administrative agency's final determination is limited. In re Taylor, 158 N.J. 644, 656 (1999). The determination will not be reversed unless: "(1) it was arbitrary, capricious or unreasonable; (2) it violated express or implied legislative policies; (3) it offended the State or Federal constitution; or (4) the findings on which it is based were not supported by substantial, credible evidence in the record." University Cottage Club of Princeton, New Jersey Corp. v. New Jersey Department of Environmental Protection, 191 N.J. 38, 48 (2007). There is no contention that the determination of the Assistant Commissioner violated express or implied legislative policies or offended the State or Federal constitution. Conversely there is no doubt that the decision was arbitrary, capricious or unreasonable and in no way supported by the record.

In Application of North Jersey Dist. Water Supply Commission, 175 N.J. Super. 167 (App. Div. 1980), the DEP approved a project proposed by a water supply commission which would constitute an encroachment upon the historic Great Falls located in the City of Paterson. The Court upheld the decision, noting:

"We find there was a record for the Commissioner's review which included findings of the six-member panel of the [Historic Sites] Council, the report of the Council itself, as well as material submitted by Paterson and developed by the DEP Staff personnel for the HSC. The Commissioner weighed the conflicting interests before him and determined that encroachment on the Great Falls

and the adjacent district was necessary in order to satisfy the need for an increased public water supply ... An examination of the record here shows that it contains sufficient credible evidence to support the Commissioner's decision." Id. at page 205.

In Beattystown Community Council v. Department of Environmental Protection, 313 N.J. Super. 236 (App. Div. 1998), a developer proposed improvements to intersecting roads in the Beattystown Historic District. The DEP determined the improvement to be an encroachment. A public hearing was held before the HSC. The Assistant Commissioner determined that a more complete record needed to be developed before the HSC and required an additional hearing. He thereafter approved the project. Id. at page 240.

In his decision, the Assistant Commissioner found that the roadway improvements would have a negative impact on the historic district but were "not avoidable" as there were "no meaningful alternatives to making some road and traffic improvements." Id. at page 242. In point of fact, six alternate plans to a signalized and widened intersection were considered with none found to be "reasonable and prudent alternatives." Id. at page 243.

In re Project Authorization Under New Jersey Register of Historic Places Act, 408 N.J. Super. 540 (App. Div. 2009) further illustrates adherence to the process envisioned by the Statute and Code. As part of a planned redevelopment in the City of Camden, Campbell Soups proposed to acquire and demolish the historic Sears Building in order to create a multi-million dollar expansion of

its corporate campus. The DEP found the demolition to constitute an encroachment. The HSC held a hearing resulting in the adoption of a resolution recommending denial of the application. It concluded that the applicant had not adequately addressed feasible and prudent alternatives to the demolition. *Id.* at page 553.

The Commissioner nevertheless approved the project. As described by the Court, the Assistant Commissioner "reviewed the record and considered the project's public benefit. She also considered whether there were feasible and prudent alternatives to demolition, and whether sufficient measures could be taken to avoid, reduce or mitigate the impact on the Sears building." *Id.* at page 553. She made explicit findings based upon the credible evidence. She described the public benefits such as the retention of 1,200 jobs, the expansion of Campbell Soup's Landmark headquarters, the development of an office park to attract new businesses, infrastructure improvements and tax ratables for an ailing City. *Id.* at page 561.

She similarly analyzed whether feasible and prudent alternatives that could avoid demolition existed. She found, based upon a careful analysis of the costs submitted, that "significant financing gaps render all other alternatives infeasible." *Id.* at page 567. Finally, she approved measures specifically designed to mitigate the encroachment including efforts to salvage significant architectural details. *Id.* at page 553.

In the present case, none of that happened. The HSC did not hold hearings. It conducted a single "meeting" before a four member assembly. It did not adopt recommendations or make any findings to guide the Commissioner. It dead-locked, 2-2, and as such submitted no report for consideration by the Commissioner.

The Assistant Commissioner clearly prejudged the application and relied upon invalid criteria. He sent an email to the Mayor's Office advising that the project was similar to uncited applications for synthetic turf fields in unidentified places, which is not a consideration under the statute. He noted that he had been briefed on the project before his statutorily designated advisory council ever heard the matter or made a recommendation. He candidly admitted he was likely to approve the matter before considering the record.

The letter of May 11, 2017, contains no analysis whatsoever. There is no identification, as required by law, of the public benefit. There is no review of that public benefit in the context of reasonable or prudent alternatives. There is no correlation between the supposed mitigating factors and the encroachment created by the project. Case law makes clear that there must be findings of fact, there must be conclusions of law, and there must be support for each in the record.

The purpose to be served, while not stated, is presumably recreation. Even if we were to surmise the purpose to be

recreation, it must be remembered that recreation was taking place at the time of the application, albeit on a marginally improved grass field. Recreation is indeed a laudable purpose. But that purpose could still be served, without any encroachment whatsoever, through simple improvements to a grass field. In case after case the important public benefit requiring the grant of approval to encroach upon an historic place was one of urgent necessity. How does one reconcile the installation of a turf field with purposes like the provision of potable water, the signalization of a dangerous intersection, or the demolition of a historic building in a city desperately in need of redevelopment. In each reported case there was no alternative to the encroachment. That is not the case here.

The statute requires consideration of feasible and prudent alternatives to the encroachment. The letter of the Assistant Commissioner does nothing of the sort. The failure to do so, like the failure to identify a public purpose, is arbitrary by definition. It is required by law. Feasible alternatives clearly exist. There is no indication any were considered.

The resolution prepared by Staff suggests that the synthetic turf field is needed because it is hard to get water to the field. It is kind of dry. How does that justify the expenditure of one million dollars to install turf in an historic Park when a few thousand dollars, at most, would have been needed to run a one-

inch water line - without any encroachment. Are there any other spots in the 103 acre park where a grass field might be located with better access to water. Are there alternative locations for a synthetic turf field outside of historic Goffle Brook Park. Is it really possible that the only place to install a synthetic turf field in all of Passaic County is in the middle of this historic place. These questions are left unanswered by the conclusory letter of the Assistant Commissioner.

A review of the mitigating conditions is equally disconcerting. None of the conditions actually mitigate the damage done by the encroachment. Installation of three way finding signs and a display of the original Olmsted Plans in historic Rea House have no bearing on a synthetic turf field. Neither does the creation of an updated Historic Preservation Plan Element to the County's Parks, Recreation and Open Space Master Plan. Finally, the idea that the County will move a \$1,000,000 project if it suddenly finds a better location is pointless. It does beg the question, were alternative locations really considered.

The decision of the DEP was unquestionably arbitrary, capricious and unreasonable. It was not based upon a credible, supported record and there is nothing in the decision issued by the Assistant Commissioner that would constitute the "specific reasoning" mandated by the Code. How does any reading of the conclusory and unsupported letter of May 11, 2017 not result in,

at the very least, a remand for application of the statutory and administrative code factors. There is no finding as to the public purpose to be served. There is no weighing of that purpose against feasible or prudent alternatives or consideration of mitigating measures. There is simply no statutory compliance at all.

On a visceral level, it is hard to imagine what the elected County officials were thinking when they came up with this plan. After a painstaking and thoughtful multi-year, multi-million dollar restoration of this historic park to its original design, someone looked at the finished product and said, "Great. Now let's turf it." But the role of this Court is not to substitute its judgment for that of others.

The application presented is a review of the conclusory determination made by the body statutorily charged with protecting and preserving historic integrity, the DEP. While deference is to be accorded to that determination, the same cannot be upheld if it is arbitrary or capricious. How can we know what the Assistant Commissioner was thinking if he did not put pen to paper, if he did not explain his rationale as required by law. This Court would not hesitate to remand such conclusory determination, devoid of findings or fact or conclusions of law, to a lower court. This Court must do so here as well.

CONCLUSION

For the foregoing reasons, the Borough of Hawthorne asks this Court to reverse the determination of the Assistant Commissioner in granting project approval.

Respectfully submitted,

s/Michael J. Pasquale
MICHAEL J. PASQUALE, ESQ.
Attorney for Appellant, Borough of
Hawthorne



County of Passaic

Administration Building Room 205

401 Grand Street • Paterson, New Jersey 07505-2023

Anthony J. DeNova

County Administrator

TEL: (973) 881-4405

FAX: (973) 881-2853

e-mail: adenova@passaiccountynj.org

Sent via Email and Certified Mail: 7014 1200 0001 8581 8268

May 31, 2017

Richard Boornazian, Assistant Commissioner
Natural and Historic Resources
DEP, Natural and Historic Resources
Mail Code 501-03A
PO Box 420
Trenton, New Jersey 08625

RE: Hawthorne Borough, Passaic County
Goffle Brook Park Synthetic Turf Field
Goffle Brook Park (SR: 8/29/2002)

Dear Commissioner Boornazian,

Thank you for your letter dated May 11, 2017, in which you authorize the installation of a synthetic turf field at Goffle Brook Park, Hawthorne, NJ, as well as outlining three (3) mitigating conditions. Enclosed, please find a certified copy of Resolution R17-429 adopted by the County of Passaic Board of Chosen Freeholders, at their board meeting on May 23, 2017, authorizing me to sign the aforementioned letter accepting the conditions to the construction of the synthetic turf field as set forth.

Sincerely,

Anthony J. De Nova
County Administrator, County of Passaic

ADN/dcd
Enclosures

Cc: Board of Chosen Freeholders, County of Passaic
William J. Pascrell, III, County Counsel
Steven J. Edmond, P.E., County Engineer
Jonathan Pera, P.E., County Engineering Dept.
Matthew P. Jordan, Esq., Deputy County Administrator
Kelly Ruffel, PC Dept. of Cultural & Historic Affairs
Kathleen M. Caren, PC Open Space Coordinator
Nordan Murphy, Alaimo Group
Passaic County Historical Society
Hawthorne Historical Society
Richard S. Goldberg, Mayor, Hawthorne Borough
Eric Maurer, Borough Administrator, Hawthorne Borough

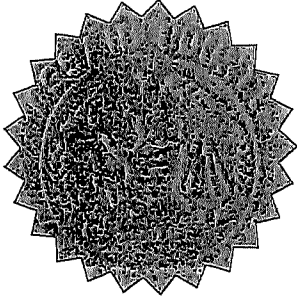
BOARD OF CHOSEN FREEHOLDERS
OF THE COUNTY OF PASSAIC
STATE OF NEW JERSEY

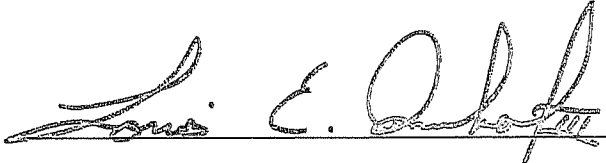
Resolution 17-429

Louis E. Imhof, III

I, ~~MARIA P. HAVASY, Acting~~ Clerk of the Board of Chosen Freeholders of the County of Passaic, do hereby
certify that the annexed is a true copy of a Resolution, passed at a Regular
meeting of the Board of Chosen Freeholders held on the 23rd day of
May 2017

IN WITNESS WHEREOF, I have hereunto set my hand and seal of the County of Passaic this
30th May 2017
day of _____




Clerk of the Board of Chosen Freeholders
of the County of Passaic

Passaic County Board of Chosen Freeholders

OFFICE OF THE
PASSAIC COUNTY FREEHOLDERS

Director Cassandra "Sandi" Lazzara

Deputy Director Bruce James

Assad R. Akhter

John W. Bartlett

Theodore O. Best, Jr.

Terry Duffy

Pasquale "Pat" Lepore

401 Grand Street
Paterson, New Jersey 07505

Tel: 973-881-4402
Fax: 973-742-3746

Anthony J. De Nova III

Administrator

William J. Pascrell, III, Esq.

County Counsel

Louis E. Imhof, III, RMC

Clerk Of The Board



Public Meeting (Board Meeting)

Date: May 23, 2017 - 5:30 PM

Location: County Administration Building
220
401 Grand Street
Paterson, NJ 07505

Agenda: RESOLUTION AUTHORIZING THE PASSAIC COUNTY ADMINISTRATOR TO ACCEPT THE CONDITIONS OF AUTHORIZATION OUTLINED IN LETTER FROM THE ASSISTANT COMMISSIONER FOR NATURAL AND HISTORIC RESOURCES BY SIGNING SAME AS IT CONCERNS PASSAIC COUNTY'S APPLICATION FOR AUTHORIZATION TO INSTALL A SYNTHETIC TURF FIELD WITHIN GOFFLE BROOK PARK IN HAWTHORNE, NJ, ALL AS NOTED IN THE RESOLUTION

THIS RESOLUTION WAS REQUESTED BY:

REVIEWED BY:

Anthony J. De Nova III

COUNTY ADMINISTRATOR

APPROVED AS TO FORM AND LEGALITY:

William J. Pascrell, III, Esq.

COUNTY COUNSEL

Public Works

COMMITTEE NAME

Official Resolution#		R20170429							
Meeting Date		05/23/2017							
Introduced Date		05/23/2017							
Adopted Date		05/23/2017							
Agenda Item		k-27							
CAF #									
Purchase Req. #									
Result		Adopted							
FREEHOLDER		PRES.	ABS.	MOVE	SEC	AYE	NAY	ABST.	RECU.
Lazzara		✓				✓			
James		✓		✓		✓			
Akhter		✓			✓	✓			
Bartlett		✓				✓			
Best Jr.		✓				✓			
Duffy		✓				✓			
Lepore		✓				✓			

PRES.= present ABS.= absent
MOVE= moved SEC= seconded
AYE= yes NAY= no ABST.= abstain
RECU.= recuse

Dated: May 24, 2017

RESOLUTION AUTHORIZING THE PASSAIC COUNTY ADMINISTRATOR TO ACCEPT THE CONDITIONS OF AUTHORIZATION OUTLINED IN LETTER FROM THE ASSISTANT COMMISSIONER FOR NATURAL AND HISTORIC RESOURCES BY SIGNING SAME AS IT CONCERNS PASSAIC COUNTY'S APPLICATION FOR AUTHORIZATION TO INSTALL A SYNTHETIC TURF FIELD WITHIN GOFFLE BROOK PARK IN HAWTHORNE, NJ

WHEREAS Goffle Brook Park in the Borough of Hawthorne, NJ is a Park owned by the County of Passaic and, as an Olmstead Brothers' designed park, is listed on the New Jersey Register of Historic Places; and

WHEREAS the Passaic County Parks Department Administration is recommending to the Board of Chosen Freeholders of the County of Passaic that one of the fields in that Park, which is heavily used by the public, be converted from a grass field to a synthetic turf field in order to allow greater use by the public; and

WHEREAS because Goffle Brook Park is listed on the New Jersey Register of Historic Places, a Project Authorization Application was submitted to the New Jersey Department of Environmental Protection Historic Preservation Office and was later referred to the New Jersey Historic Sites Council who reviewed this matter and considered the request at its April 21, 2017 meeting; and

WHEREAS after the meeting and further review by the Assistant Commissioner of the New Jersey Department of Environmental Protection Natural and Historic Resources, the Assistant Commissioner issued a letter dated May 11, 2017 to the Passaic County Administrator consenting to the construction of the synthetic turf field in Goffle Brook Park subject to three (3) conditions set forth in the letter (copy of letter attached hereto and

made a part hereof); and

WHEREAS pursuant to the regulations dealing with the New Jersey Register of Historic Places; specifically, N.J.S.A. 7:4-7.2(9) the said letter constitutes a written decision on the matter, but must be accepted by the applicant; in this case, the County of Passaic, within sixty (60 days) (subsection (9)(ii)(1); and

WHEREAS the Freeholder members of the Committee for Public Works and Buildings & Grounds have reviewed this letter and conditions for approval and are recommending that they be agreed to by the full Board.

NOW THEREFORE BE IT RESOLVED by the Board of Chosen Freeholders of the County of Passaic that it hereby authorizes the Passaic County Administrator, on behalf of the Board, to accept the three (3) conditions set forth in the attached letter dated May 11, 2017 from the Assistant Commissioner for Natural and Historic Resources in the New Jersey Department of Environmental Protection allowing the County of Passaic to proceed with the plan to install a synthetic turf field in Goffle Brook Park in Hawthorne, NJ.

BE IT FURTHER RESOLVED that a certified copy of this Resolution be forwarded to the said Assistant Commissioner with the County Administrator's acceptance of the May 11, 2017 letter.

May 23, 2017



HPO Project # 17-0216-7
HPO-E2017-111-PROD

State of New Jersey

DEPARTMENT OF ENVIRONMENTAL PROTECTION
NATURAL AND HISTORIC RESOURCES

Office of the Assistant Commissioner
MAIL CODE 501-03A

PO Box 420
Trenton, New Jersey 08625
609-292-3541/Fax: 609-984-0836

CHRIS CHRISTIE
GOVERNOR

KIM GUADAGNO
Lt. Governor

BOB MARTIN
COMMISSIONER

May 11, 2017

Anthony J. DeNova
County Administrator
401 Grand Street
Room 205
Paterson, NJ 07505

RE: Hawthorne Borough, Passaic County
Goffle Brook Park Synthetic Turf Field
Goffle Brook Park (SR: 8/29/2002)

Dear Mr. DeNova:

I am writing concerning your application for authorization for the installation of a synthetic turf field within Goffle Brook Park, which is listed on the New Jersey Register of Historic Places. In accordance with the New Jersey Register of Historic Places Act, the Historic Preservation Office (HPO) presented the application to the New Jersey Historic Sites Council (HSC) at its April 21, 2017 meeting. In their vote on resolution number HSC-2017-385, Council members split with two in favor and two opposed to project authorization.

Consequently, I have reviewed the project file; the resolution; comments made by the Council during the meeting; and the testimony of the applicant and public and taken this into account. Based upon this review, I have evaluated the undertaking's public benefit; prudent and feasible alternatives; and measures taken to avoid, reduce, or mitigate the encroachment.

I hereby authorize the construction of a synthetic turf field in Goffle Brook Park with the following mitigating conditions, which are outlined in the above-referenced resolution:

1. The County shall plan, develop, and install no fewer than three (3) interpretive wayfinding signs within Goffle Brook Park, which highlight its history. Signage shall include quality reproductions of historic photography of the park and original Olmsted plans in order to visually interpret how it has changed over time. The County shall submit draft text and mockups for the signs, as well as locations proposed for their installation, to the HPO for review and approval.
2. The County shall create a display of high quality reproductions of original Olmsted plans in the Rea House, which is a contributing resource within Goffle Brook Park (and for which a \$1.5M rehabilitation is planned.) The signage shall incorporate text regarding the history and development of the park and its association with the Rea House, which shall be reviewed and approved by the HPO prior to installation. The County shall submit photos of the display after installation to the HPO.

Introduced on: May 23, 2017
Adopted on: May 23, 2017
Official Resolution#: R20170429

1 of 3

HPO Project # 17-0216-7
HPO-E2017-111-PROD

3. The County shall prepare as an amendment to the existing Parks, Recreation and Open Space Master Plan, a Historic Preservation Plan Element, which shall also be incorporated into future master plan updates. The Historic Preservation Plan Element shall identify the historic designed landscapes, buildings, structures, objects, and known archaeological sites within the existing Parks, Recreation and Open Spaces owned by Passaic County and address appropriate treatments for these historic properties in accordance with National Park Service Brief 36 (<https://www.nps.gov/tps/how-to-preserve/briefs/36-cultural-landscapes.htm>) and the Olmsted Center for Landscape Preservation's *Guide to Developing a Preservation Maintenance Plan for a Historic Landscape*:

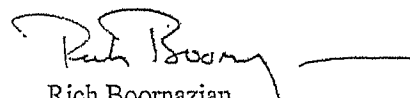
<https://www.nps.gov/oclp/Guide%20to%20Developing%20a%20Preservation%20Maintenance%20Plan%20for%20an%20Historic%20Landscape.pdf>

The Historic Preservation Plan Element shall include the following language: "in the event that a more suitable, non-historic park site for installation of a multi-use synthetic turf field is identified by the County, the Goffle Brook Park synthetic turf field shall be dismantled and returned to a natural turf state." The Historic Preservation Plan Element shall be completed by a person(s) meeting Secretary of the Interior's Professional Qualification Standards in Historic Landscape Architecture or Historic Preservation with demonstrated experience in historic landscapes. The intent of the Historic Preservation Plan Element is to complement the County's Parks, Recreation and Open Space Master Plan by identifying the role of historic resources in the county parks, and plan for their treatment going forward. The final draft plan shall be submitted to the HPO for review and approval within three years of this Resolution.

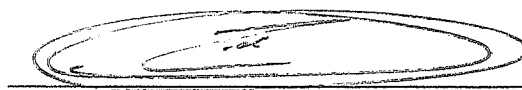
Please note that, in accordance with N.J.A.C. 7:4-7.2(e)9ii(1), you must respond in writing to the conditions within 60 days of the issuance of this letter. If you agree to the conditions specified above, please sign the bottom of this letter in the space provided and return it to the HPO. Signature at the bottom of the letter will constitute formal acceptance of the conditions of project authorization. If you disagree or fail to respond to the requirements set forth within 60 days, I must, by regulation, deny your application.

Please do not hesitate to contact Michelle Craren of the HPO staff at (609) 292-0032 or michelle.craren@dep.nj.gov if you have any questions.

Sincerely,


Rich Boornazian
Assistant Commissioner for
Natural and Historic Resources

By signing this letter, the County of Passaic accepts the conditions of authorization outlined above, in accordance with New Jersey Register of Historic Places Act, Chapter 4, laws of 1970 and N.J.A.C. 7:4-7.2(e)9ii(1).



For the County of Passaic

5.31.17

Date

Introduced on: May 23, 2017
Adopted on: May 23, 2017
Official Resolution#: R20170429

HPO Project # 17-0216-7
HPO-E2017-111-PROD

Attachment

Cc: Jonathan Pera, P.E., Passaic County Engineering Department
Kelly Ruffel, Passaic County Department of Cultural & Historic Affairs
Steven J. Edmond, P.E., Passaic County Engineer
Matthew P. Jordan, Esq., Deputy County Administrator
Nordan Murphy, Alaimo Group
Kathleen M. Caren, Passaic County Open Space Coordinator
Passaic County Historical Society
Hawthorne Historical Society
Richard S. Goldberg, Mayor, Hawthorne Borough
Eric Maurer, Borough Adminsitrator, Hawthorne Borough

APPENDIX 23

Sports Use Numbers (2021-2022)

Sports Use Numbers

Please find below the numbers for grades K-8 for 2022 and the program totals for both 2022 and 2021. Female participation is up 76% over last year.

Grade	Tackle	Flag	All Programs	Female
K	0	36	36	0
1	0	71	71	6
2	17	69	69	13
3	24	73	78	5
4	36	83	89	7
5	34	100	107	16
6	32	90	95	9
7	32	77	95	2
8	31	75	86	9
2022 Total	206	674	726	67
2021 Total	186	611	681	38
% Increase	11%	10%	7%	76%

LAX

Boys and girls, grades K-8

2022 – Total of 711.

2023 - 686 kids for this season, with a month before the season starts, so more will register.

ADULT SPORTS/MEN'S SOCCER

Organized – 68

Pickup – 35

RIDGEWOOD BASEBALL/SOFTBALL ASSOCIATION

Season Participation:			2022	2021	2020	2019
Kindergarten			171	146	138	168
1st Grade Baseball			105	98	100	132
2nd Grade Baseball			97	91	111	103
3rd Grade Baseball			94	89	98	112
Little League Baseball			147	192	217	201
Bonvarlet Baseball			50	77	85	95
SAS (special needs)			31	26	24	38
Pre-K Kickball			341	289	245	320
1st Grade Softball			47	56	44	39
2nd Grade Softball			47	47	34	44
Ponytail Softball			91	70	61	68
Junior Softball			50	41	57	72
Senior Softball			34	37	52	45
Grand Total:			1305	1259	1266	1437

TRAVEL AND RECREATIONAL SOCCER

Please note that the town recreational program is only run in the Fall. An additional note, Ridgewood High School athletes play in the Spring for the Maroons Soccer Club, in the Fall those athletes play only for Ridgewood High School and therefore are not included in the Fall numbers.

Fall - 1,890 (rec and travel programs ages 5 -19)

Spring - 838 (travel program only, ages 8-19)

Approximate use of field(s) between practice and league games:

Monday - Thursday 4-9pm (practice)

Friday 4-6pm (practice)

Saturday 8am - 6pm (league games)

Sunday 8am - 6pm (league games)

Heather A. Mailander
Village Manager/Village Clerk
Village of Ridgewood

APPENDIX 24

200' Property Owner List



VILLAGE OF RIDGEWOOD

131 NORTH MAPLE AVENUE
RIDGEWOOD, NEW JERSEY 07450

DIVISION OF ASSESSMENT

William M. Palumbo

Phone (201) 670-5500 x2220

Fax (201) 251-9432

Email: vorassessor@ridgewoodnj.net

Certified Property Owners List

(Property within 200 feet)

Name of Applicant: Matthew S. Rogers, Esq.
Property Location: 460 W. Saddle River Rd.
Block: 4704
Lot: 9, 10, 11 & 12
Purpose: Application for Approval –
State Historic Preservation
Date of List: 02/14/24

I hereby certify that the attached list was created from the official records of the Village of Ridgewood.

William M. Palumbo
Assessor

LEGAL NOTICE TO PUBLIC/PRIVATE UTILITIES & GOVERNMENT AGENCIES

(All notice must be by certified mail)

Chapter 245 of the New Jersey Public Laws of 1991 requires that all persons seeking the approval of any kind of a land development application from a local zoning board of adjustment or from a planning board must give notice to all public utilities and cable television companies that possess any right-of-way or easements within or across the subject property.

The addresses of the various utilities that may have to be given notice of your application are as follows:

ELECTRIC & GAS

Public Service Electric & Gas Co.

Manager - Corporate Properties

80 Park Plaza, T6B

Newark, New Jersey 07102

TELEPHONE

Verizon NJ Inc

Mark Bocchieri, Director - External Affairs

25 Main Street

Hackensack, N.J. 07601

WATER

Ridgewood Water Department

Director's Office

131 N. Maple Avenue

Ridgewood, N.J. 07451

SEWER

Engineering Division

Collection System Operations

131 N. Maple Avenue

Ridgewood, N.J. 07451

CABLE TV

Cablevision

40 Potash Road

Oakland, N.J. 07436

It is the applicant's responsibility to determine whether or not there are any rights-of-ways or easements on or across the property; and if so, it is the applicant's responsibility to give legal notice to the appropriate utility or utilities. If you are in doubt, it is suggested that notice be given to the appropriate public utilities.

GOVERNMENT AGENCIES

If the subject property is located on a County Road or is within 200' of any County property, notify:

Bergen County Planning Board

One Bergen County Plaza

Hackensack, N.J. 07601-7000

If on a State Highway, notify:

NJ Department of Transportation

1035 Parkway Avenue

Trenton, N.J. 08625

If within 200 ft. of Railroad, notify:

State of NJ DOT

Market Street & McCarter Highway

Newark, NJ 07101

If the subject property is within 200 feet of a municipal border, the ***Clerk*** of the adjacent Municipality and the ***Bergen County Planning Board*** must be notified.

TAKE FURTHER NOTICE, that in addition, notice of public hearings on applications for major subdivision approvals or major site plan approvals must be given by the applicant to all public utilities and all cable television companies that have any facilities or possess a right-of-way of easement located anywhere within 200 feet of the subject property. It is suggested that major subdivision and major site plan approval applicants should contact the appropriate utilities and obtain in writing a statement whether or not the utility has any facilities easement within 200 feet of the subject property.



Ridgewood Village

Parcel Offset List

Target Parcel(s): Block-Lot: 4704-9
VILLAGE OF RIDGEWOOD
Block-Lot: 4704-11
VILLAGE OF RIDGEWOOD
Block-Lot: 4704-10
VILLAGE OF RIDGEWOOD
Block-Lot: 4704-12
VILLAGE OF RIDGEWOOD

28 parcels fall within 200 feet of this parcel(s).

Block-Lot: 4703-13

400 SOUTH ASSOCIATES %ASSET REALTY
155 N. DEAN ST SUITE 4-B
ENGLEWOOD, NJ 07631

Block-Lot: 4703-11

490 RIDGEWOOD LLC NJ
792 ROUTE 17 NORTH
PARAMUS, NJ 07652

Block-Lot: 4709-18

DOLCE, PHILIP C & PATRICIA F
625 KINGSBRIDGE LANE
RIDGEWOOD, NJ 07450

Block-Lot: 4711-1

NG, TIN YEE & JUN YA QIN
626 KINGSBRIDGE LN
RIDGEWOOD, NJ 07450

Block-Lot: 4704-8

GREENE, MARY E
510 W SADDLE RVR RD.
RIDGEWOOD NJ 07450

Block-Lot: 4703-9

AK REALTY LLC
545 RT 17 SOUTH
RIDGEWOOD, NJ 07450

Block-Lot: 4711-4

KHOURY, BERNARD S & SONIA AOUN
339 QUEENS CT
RIDGEWOOD, NJ 07450

Block-Lot: 4704-7.04

WARD, DAVID P
542 W SADDLE RIVER RD
RIDGEWOOD, NJ 07450

Block-Lot: 4707-20

BALASUBRAMANIAM, PRADEEP & SANGEETHA
626 KENWOOD RD
RIDGEWOOD, NJ 07450

Block-Lot: 4707-23

CLARA I TRAINA FAMILY TRUST
481 W SADDLE RIVER RD
RIDGEWOOD, NJ 07450

Block-Lot: 4707-21
SHETH, VIRENDRA & VYAS, VAIDEHI
501 W SADDLE RIVER ROAD
RIDGEWOOD, NJ 07450

Block-Lot: 4705-12
MCNERNEY, DANIEL
615 KENWOOD RD
RIDGEWOOD, NJ 07450

Block-Lot: 4704-15
MARTICEK, LINDA & VINCENT
512 W. SADDLE RIVER RD
RIDGEWOOD NJ 07450

Block-Lot: 4703-8
SOCIETY OF THE VALLEY HOSPITAL, INC
15 ESSEX RD. - SUITE 501
PARAMUS, NJ 07652

Block-Lot: 4704-13
DA SILVA, NORKA M.
520 W SADDLE RIVER RD
RIDGEWOOD NJ 07450

Block-Lot: 4704-7.03
HENKE, DONALD F & JANICE
P.O. BOX 471
HO-HO-KUS, NJ 07423

Block-Lot: 4703-14
657 RIDGEWOOD LLC %WASEEM PETROLEUM
11 DEAN ST
MADISON, NJ 07940

Block-Lot: 4707-22
ENNER, PETER R. & ILDIKO J.
491 W SADDLE RIVER RD
RIDGEWOOD, NJ 07450

Block-Lot: 4709-1
DHARIA, ANKIT P & MUKTI ANKIT
471 W SADDLE RIVER RD
RIDGEWOOD, NJ 07450

Block-Lot: 4711-3
PARK, SEONGHOON & LEE, GOEUN
329 QUEENS CT
RIDGEWOOD, NJ 07450

Block-Lot: 4704-14
MARATHE, NEHA & ARCHIS
516 W SADDLE RIVER RD
RIDGEWOOD, NJ 07450

Block-Lot: 4703-10
CATJAM LLC NJ
57 WOODCREST DRIVE
WOODCLIFF LAKE, NJ 07677

Block-Lot: 4711-5
WALLACE, PAUL C & CAROL A
345 QUEENS CT
RIDGEWOOD NJ 07450

Block-Lot: 4709-19
SHIN, PAUL & HONG, SOYEON
615 KINGSBRIDGE LANE
RIDGEWOOD, NJ 07450

Block-Lot: 4707-24
SHRIMALI, MANISH & ANURADHA
625 TERHUNE RD
RIDGEWOOD, NJ 07450

Block-Lot: 4709-2
KERNER, SAMUEL & CLAIRE
636 TERHUNE RD
RIDGEWOOD, NJ 07450

Block-Lot: 4703-12
LIVA BUILDING LLC
625 FRANKLIN TPKE
RIDGEWOOD, NJ 07450

Block-Lot: 4711-2
KIM, JUNG P & HEA MEE %JAY KIM
44 MACINTYRE LN
ALLENDALE, NJ 07401



400 SOUTH ASSOCIATES %ASSET REALTY 155 N. DEAN ST SUITE 4-B ENGLEWOOD, NJ	07631	DOLCE, PHILIP C & PATRICIA F 625 KINGSBRIDGE LANE RIDGEWOOD, NJ	07450	GREENE, MARY E 510 W SADDLE RVR RD. RIDGEWOOD NJ	07450
KHOURY, BERNARD S & SONIA AOUN 339 QUEENS CT RIDGEWOOD, NJ	07450	BALASUBRAMANIAM, PRADEEP & SANGEETHA 626 KENWOOD RD RIDGEWOOD, NJ	07450	490 RIDGEWOOD LLC NJ 792 ROUTE 17 NORTH PARAMUS, NJ	07652
NG, TIN YEE & JUN YA QIN 626 KINGSBRIDGE LN RIDGEWOOD, NJ	07450	AK REALTY LLC 545 RT 17 SOUTH RIDGEWOOD, NJ	07450	WARD, DAVID P 542 W SADDLE RIVER RD RIDGEWOOD, NJ	07450
CLARA I TRAINA FAMILY TRUST 481 W SADDLE RIVER RD RIDGEWOOD, NJ	07450	SHETH, VIRENDRA & VYAS, VAIDEHI 501 W SADDLE RIVER ROAD RIDGEWOOD, NJ	07450	MARTICEK, LINDA & VINCENT 512 W. SADDLE RIVER RD RIDGEWOOD NJ	07450
DA SILVA, NORKA M. 520 W SADDLE RIVER RD RIDGEWOOD NJ	07450	657 RIDGEWOOD LLC %WASEEM PETROLEUM 11 DEAN ST MADISON, NJ	07940	DHARIA, ANKIT P & MUKTI ANKIT 471 W SADDLE RIVER RD RIDGEWOOD, NJ	07450
MARATHE, NEHA & ARCHIS 516 W SADDLE RIVER RD RIDGEWOOD, NJ	07450	WALLACE, PAUL C & CAROL A 345 QUEENS CT RIDGEWOOD NJ	07450	SHRIMALI, MANISH & ANURADHA 625 TERHUNE RD RIDGEWOOD, NJ	07450
MCNERNEY, DANIEL 615 KENWOOD RD RIDGEWOOD, NJ	07450	SOCIETY OF THE VALLEY HOSPITAL, INC 15 ESSEX RD. - SUITE 501 PARAMUS, NJ	07652	HENKE, DONALD F & JANICE P.O. BOX 471 HO-HO-KUS, NJ	07423
ENNER, PETER R. & ILDIKO J. 491 W SADDLE RIVER RD RIDGEWOOD, NJ	07450	PARK, SEONGHOON & LEE, GOEUN 329 QUEENS CT RIDGEWOOD, NJ	07450	CATJAM LLC NJ 57 WOODCREST DRIVE WOODCLIFF LAKE, NJ	07677
SHIN, PAUL & HONG, SOYEON 615 KINGSBRIDGE LANE RIDGEWOOD, NJ	07450	KERNER, SAMUEL & CLAIR 636 TERHUNE RD RIDGEWOOD, NJ	07450	LIVA BUILDING LLC 625 FRANKLIN TPKE RIDGEWOOD, NJ	07450
KIM, JUNG P & HEA MEE %JAY KIM 44 MACINTYRE LN ALLENDALE, NJ	07401				

APPENDIX 25

Tree Removal Plan and Tree Count

From: [Keith Kazmark](#)
To: [Siobhan Winograd](#); [peter primavera](#)
Cc: [Jovan Mehandzic](#); [Chris Rutishauser](#); [Nancy Bigos](#); [Matthew Rogers](#)
Subject: RE: Schedler Tree Survey
Date: Wednesday, September 13, 2023 1:29:45 PM
Attachments: [image001.png](#)

Can we please use these numbers directly from Declan as to what is there today:

I assessed the trees at the Schedler property this morning and the Species of trees are as follows :

- 96 Norway maples trees which are considered an invasive tree
- 25 Black cherry trees
- 8 Red maple trees
- 7 Sugar maple trees
- 21 Pin oak trees
- 25 Red oak trees
- 4 Beech trees which have Beech leaf disease (B.L.D)
- 4 Pig nut hickory trees
- 1 Black locust tree which is considered an invasive tree .

Declan Madden L.T.E

546

Best Regards,



Keith Kazmark

Village Manager

Village of Ridgewood

131 N. Maple Avenue

Ridgewood, NJ 07450

Office: 201-670-5500 ext. 2202

Fax: 201-652-2318

Cell: 201-819-7014

kkazmark@ridgewoodnj.net



From: Siobhan Winograd <swinograd@ridgewoodnj.net>
Sent: Wednesday, September 13, 2023 11:55 AM
To: peter primavera <petera.primavera@gmail.com>
Cc: Jovan Mehandzic <jmehandzic@ridgewoodnj.net>; Chris Rutishauser <crutishauser@ridgewoodnj.net>; Nancy Bigos <nbigos@ridgewoodnj.net>; Keith Kazmark <kkazmark@ridgewoodnj.net>; Matthew Rogers <msr@mrogerslaw.com>
Subject: Re: Schedler Tree Survey

Adding Matt in.

Additionally I counted from the new plan the following:

96 new shade trees
41 pine trees
182 green giants.

Can we confirm this none technical replant?

Siobhan

Sent from my iPhone

On Sep 13, 2023, at 11:28 AM, peter primavera <petera.primavera@gmail.com> wrote:

Evasive or Invasive?

To me, the really magic and important number is how many trees we are planting, right. And many can be indigenous species!!! We are making this park better with more and better trees

peter

petera.primavera@gmail.com

908.499.2116 c

908.738.1027

po box 2938
westfield, NJ. 07090

peter primavera partners llc
national landmarks alliance
www.peterprimaverapartnersllc.com

On Wed, Sep 13, 2023, 11:19 AM Jovan Mehandzic
<jmehandzic@ridgewoodnj.net> wrote:

This map is a tree inventory map we prepared with the parks dept staff.

95 Norway Maple Evasive Removal Trees
127 Removals for the field, building, I didn't do playground
68 To Be Saved
50 +/- New Deciduous Trees
60 +/- New Conifers

Jovan Mehandzic, CPWM
Assistant Engineer
Village of Ridgewood
131 North Maple Avenue
Ridgewood, NJ 07450
jmehandzic@ridgewoodnj.net
(201) 670-5500x2235

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APPENDIX 26

Maresca, NJ HPO Analysis of Revolutionary War

FW: Preliminary Application, New Jersey and National Registers of Historic Places, John A.L. Zabriskie House; HPO Project No. 20-0608

Keith Kazmark <kkazmark@ridgewoodnj.net>

Wed, Dec 6, 2023 at 9:48 AM

To: Paul Vagianos <pvagianos@ridgewoodnj.net>, Siobhan Winograd <swinograd@ridgewoodnj.net>, peter primavera <petera.primavera@gmail.com>, Heather Mailander <hmailander@ridgewoodnj.net>, Chris Rutishauser <crutishauser@ridgewoodnj.net>, Jovan Mehandzic <jmehandzic@ridgewoodnj.net>, "Matthew S. Rogers, Esq." <msr@mrogerslaw.com>

See below.

Best Regards,

Keith Kazmark

Village Manager

Village of Ridgewood

[131 N. Maple Avenue](#)

[Ridgewood, NJ 07450](#)

Office: 201-670-5500 ext. 2202

Fax: 201-652-2318

Cell: 201-819-7014

kkazmark@ridgewoodnj.net

From: Maresca, Vincent [DEP] <Vincent.Maresca@dep.nj.gov>

Sent: Wednesday, December 6, 2023 9:24 AM

To: George Wright <gwright@wright-associate.com>

Cc: Dzuby, Catherine [DEP] <Catherine.Dzuby@dep.nj.gov>; Tingey, Andrea [DEP] <Andrea.Tingey@dep.nj.gov>; Marcopul, Kate [DEP] <Kate.Marcopul@dep.nj.gov>; Baratta, Meghan [DEP] <Meghan.Baratta@dep.nj.gov>; Keith Kazmark <kkazmark@ridgewoodnj.net>

Subject: Preliminary Application, New Jersey and National Registers of Historic Places, John A.L. Zabriskie House; HPO Project No. 20-0608

****This e-mail serves as the official correspondence of the New Jersey Historic Preservation Office****

HPO Project No. 20-0608-18

HPO-L2023-033

George W. Wright

[1615 Hudson Park](#)

[Edgewater, New Jersey 07022](#)

(via email)

Bergen County, Ridgewood Village, John A.L. Zabriskie House (Zabriskie-Schedler House), [460 West Saddle River Road \(Block 4704\)](#), Lots 9, 10, 11 and 12), Preliminary Application, New Jersey and National Registers of Historic Places.

Dear Mr. Wright,

Thank you for providing the Historic Preservation Office (HPO) with the opportunity for review and comment on the potential for the above-referenced Preliminary Application to contain historic properties. The submitted documentation states you wish to expand the areas of significance for the John A.L. Zabriskie House (Zabriskie-Schedler House), currently listed on the New Jersey and National Registers of Historic Places under Criterion C, to also include Criteria A, B, and D as the property relates to the March 23, 1780, engagement at the Old Paramus Reformed Church and landscape element of the property. The HPO has reviewed the documentation you provided. Based upon the documentation submitted, it does not appear that the John A.L. Zabriskie House meets the National Park Service's requirements to expand the significance of the property to include these additional National Register criteria. We have provided a more detailed explanation of our evaluation of the documentation with regard to each criteria below.

Criterion C Significance

The Preliminary Application recommends that the *circa* 259-year-old sugar maple tree adjacent to the John A.L. Zabriskie House (Zabriskie-Schedler House) possesses significance to the historic property currently listed on the New Jersey and National Registers of Historic Places under Criterion C. The submittal acknowledges that the maple tree pre-dates both the 1780 battle and 1825 construction of the Zabriskie house. While the existing John A.L. Zabriskie House (Zabriskie-Schedler House) nomination does not provide any information on any designed landscape, the nomination does state: "The house exhibits several characteristics that are typical of a third-period [1750-1850] Jersey Dutch framed house, and it survives as one of few remaining nineteenth-century Dutch frame houses in nearby parts of Bergen County, and *one that still retains an acreage large enough to somewhat reflect its historic agricultural setting*" (emphasis added). Based on the current information and proximity of the maple tree to the Zabriskie dwelling, it appears the tree was present during the period of significance of the property. In such a context, the maple tree can be considered contributing to the agricultural setting as referenced in the John A.L. Zabriskie House (Zabriskie-Schedler House) nomination. However, this does not expand the significance of the property to add any new National Register criteria.

The National Register of Historic Places recognizes important buildings, structures, objects, sites, landscapes, and archaeological sites built and/or designed by humans. As such, additional consideration of the maple tree under the National Register of Historic Places criteria, beyond that which is described above, requires more information to

determine whether the tree was planted by humans, for what purpose, and/or if it was part of a designed landscape to understand whether it is significant as an important human-built and/or modified, landscape feature.

Criterion A Significance

The comments below are largely informed by the guidance provided in the National Park Service's (NPS) National Register Bulletin: *Guidelines for Identifying, Evaluating, and Registering America's Historic Battlefields* ([NRB 40 Battlefields](#)) (NRB 40).

The Preliminary Application provides information on the military operations for the March 23, 1780, engagement around the Old Paramus Reformed Church but does not provide specific information as to why this engagement is significant at the local, state, and/or national levels as part of the American Revolution. Lacking information on why this engagement is significant at the local, state or national levels as well as a defensible battlefield boundary supported by analysis, it is not possible at this time to determine if any battlefield elements are located within the boundary of Block 4704, Lots 9, 10, 11 and 12 or that this engagement possesses significance under Criterion A.

The significance of an engagement is derived through evaluating its impacts within the area of local, state, and/or national significance as part of the American Revolution and/or resulting formative development of the village. This will require more detailed historic research and analysis for the role of this engagement as part of the larger campaign in New Jersey during this period. Please refer to the "Defining the Historic Context" section in NRB 40 and "Chapter V. How to Evaluate a Property within its Historic Context" in NPS' National Register Bulletin: *How to Apply the National Register Criteria for Evaluation* ([NRB 15](#)). All we can say right now is the battle happened, but why is it important? That must be answered to understand if a Criterion A significance is present.

In addition, the documentation submitted does not provide information about the integrity of the battlefield (see NRB 40 "Assessing Integrity: Applying the Qualities of Integrity"). NRB 40 defines the most important aspects for integrity of a battlefield as the integrity of location, setting, feeling and association. While the submittal provides general information on the battlespace, it does not provide any specific, defensible boundaries for the limits of the engagement.

The Old Paramus Reformed Church is the only landscape feature still present today that can be identified with high confidence regarding the location of this engagement. However, for example, the location of the stone wall referenced in your submitted information is less clear. The location of this stone wall is critically important for understanding the Continental positions during the battle and reconstructing the important topographic elements of the battlefield. Similarly, eighteenth-century road alignments seldom exactly follow today's road alignments, masking routes of troop movements. Therefore, additional primary research may provide important information on the topography and cultural landscape features present during the battle refining and defining the boundaries of the engagement. In addition to the contemporary resources submitted, areas of additional primary research material and information may include:

- Robert Erskine was General Washington's geographer and surveyor preparing military maps for the Continental Army. See Robert Erskine & Simeon DeWitt 1778-1783 Revolutionary War military maps housed at the New York Historical Society.
- New Jersey Road Returns housed within the New Jersey Archives may provide information regarding the location of early roadway alignment(s) and adjacent features, such as walls and property boundary marker features, during the early nineteenth century.
- NJDOT As-Builts have similar information from the early twentieth century now removed through dense mid-twentieth century urbanization.
- Historic chain of title deed runs defining contemporary property boundaries and possibly additional information on the topography including fords, roadways, structures, or other topographic landmarks or features.
- General Washington's General Orders for the day and/or any additional primary source information from any participants or contemporary documents.

While the content above is singularly focused on a nomination for an American battlefield, without a well-defined historic context, integrity analysis, and defined boundary limits, it is not possible to understand if any element of the battle took place within Block 4704, Lots 9, 10, 11 and/or 12. Understanding the boundaries of the component elements comprising the battlefield's battle space are critical for defining this engagement. This analysis involves integrating the known literature, KOCO military terrain analysis (**K**ey Terrain/**D**ecisive Terrain; **O**bservation and **F**ields of Fire; **C**oncealment and **C**over; **O**bstacles; and **A**venues of Approach/**W**ithdrawal), and any known archaeological data for providing a sound rationale for the topographic features representing the battlefield, confirming areas of troop movements, and defining the limits of the engagement. Once the boundary is defined, an assessment whether the battlefield's integrity of location, setting, feeling and association exists for conveying any importance of the battle.

Criterion B Significance

The Preliminary Application recommends that the John A.L. Zabriskie House (Zabriskie-Schedler House) possesses significance under Criterion B for individuals significant in our past with demonstrable importance under a local, state, or national historic context. However, no specific individual is specifically referenced in the submittal.

Please be aware, for a property to be significant under Criterion B, the individual must be significant in our past history while the property must be able to convey that significance and embody that significance during the period of their most productive work.

For more detailed information, please review "Criterion B: Person" under "Chapter VI. How to Identify the Type of Significance of a Property" within NRB-15 (link provided above).

Criterion D Significance

The Preliminary Application recommends that the John A.L. Zabriskie House (Zabriskie-Schedler House) possesses significance under Criterion D for containing important information in history, typically related to archaeological deposits. The submittal references and cites historic maps from Hunter Research's *Phase IA Archaeological Assessment, Zabriskie-Schedler House and Property, Village of Ridgewood, Bergen County, New Jersey* (2019) which concludes the property contains a high sensitivity for possible Revolutionary War and early nineteenth century archaeological deposits related to the Zabriskie's family's occupation on the property.

However, based on the lack of any formal archaeological subsurface investigations within Block 4704, Lots 9, 10, 11 and 12 by professional archaeologists, it is not possible at this time to recommend that the John A.L. Zabriskie House (Zabriskie-Schedler House) has significance under Criterion D at this time. It is my understanding that a Phase IB identification archaeological survey of the property will be forthcoming which will provide data for any Criterion D consideration related to the Zabriskie family's occupation of the property and/or other pre-nineteenth century occupation.

Consideration for any archaeological deposits related to Revolutionary War period activity typically requires a metal detecting survey component as part of any Phase IB archaeological survey. For an example on battlefield archaeology and methodology, I recommend reading Douglas Scott's book *Archaeological Perspectives on the Battle of the Little Bighorn* (2000). Such a survey by professional archaeologist may provide important information on unit locations, tactical deployments, movements, and battle lines not previously identified in documents or other sources holding important information in history under Criterion D.

Therefore, based on the lack of any formal archaeological subsurface investigations by professional archaeologists within Block 4704, Lots 9, 10, 11 and 12, no Criterion D significance can be recommended at this time.

Additional Comments

Thank you for providing the opportunity to review and comment on the Preliminary Application. Please be aware that the HPO does not prepare National Register of Historic Places nominations but provides technical review and assistance to preparers, staffs the New Jersey State Review Board responsible for reviewing nominations for inclusion on the New Jersey Register of Historic Places, and finally coordinates with the National Register Program in Washington D.C. Please reference HPO project number **20-0608** in any future calls, emails, submissions or written correspondence to help expedite your review. If you have any questions, please feel free to contact me at vincent.maresca@dep.nj.gov with questions regarding archaeology and battlefield studies or Andrea Tingey at andrea.tingey@dep.nj.gov with questions regarding the National Register nomination process and technical review.

Sincerely,

Vincent Maresca, M.A. | Program Specialist 3 | Historic Preservation Office

Department of Environmental Protection | Mail Code 501-04B | PO Box 420 | Trenton, NJ 08625-0420

P: (609) 633-2395 | F: (609) 984-0578 | vincent.maresca@dep.nj.gov | Website: <http://www.nj.gov/dep/hpo>



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APPENDIX 27

Description of How Secretary
of Interior Standards is Followed



ARTICLE

The Secretary of the Interior's Standards for the Treatment of Historic Properties: Rehabilitation as a Treatment and Standards for Rehabilitation

Rehabilitation as a Treatment

Rehabilitation is defined as the act or process of making possible a compatible use for a property through repair, alterations, and additions while preserving those portions or features which convey its historical, cultural, or architectural values.

Standards for Rehabilitation

1. A property will be used as it was historically or be given a new use that requires minimal change to its distinctive materials, features, spaces and spatial relationships.
2. The historic character of a property will be retained and preserved. The removal of distinctive materials or alteration of features, spaces and spatial relationships that characterize a property will be avoided.
3. Each property will be recognized as a physical record of its time, place and use. Changes that create a false sense of historical development, such as adding conjectural features or elements from other historic properties, will not be undertaken.
4. Changes to a property that have acquired historic significance in their own right will be retained and preserved.
5. Distinctive materials, features, finishes, and construction techniques or examples of craftsmanship that characterize a property will be preserved.
6. Deteriorated historic features will be repaired rather than replaced. Where the severity of deterioration requires replacement of a distinctive feature, the new feature will match the old in design, color, texture and, where possible, materials. Replacement of missing features will be substantiated by documentary and physical evidence.

7. Chemical or physical treatments, if appropriate, will be undertaken using the gentlest means possible. Treatments that cause damage to historic materials will not be used.
8. Archeological resources will be protected and preserved in place. If such resources must be disturbed, mitigation measures will be undertaken.
9. New additions, exterior alterations, or related new construction will not destroy historic materials, features, and spatial relationships that characterize the property. The new work will be differentiated from the old and will be compatible with the historic materials, features, size, scale and proportion, and massing to protect the integrity of the property and its environment.
10. New additions and adjacent or related new construction will be undertaken in such a manner that, if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings

- [Introduction, Historical Overview, Preservation Standards & Guidelines, Rehabilitation Standards & Guidelines \(pp.1-162, PDF\)](https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf)
(<https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf>)
- [Restoration Standards & Guidelines and Reconstruction Standards & Guidelines \(pp.163-241, PDF\)](https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part2-reconstruction-restoration.pdf)
(<https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part2-reconstruction-restoration.pdf>)

☑ Important Note about the Standards for Rehabilitation

The **Secretary of the Interior's Standards for the Treatment of Historic Properties (36 CFR Part 68, 1995)** consists of four treatment standards—Preservation (<https://www.nps.gov/articles/000/treatment-standards-preservation.htm>), Rehabilitation (<https://www.nps.gov/articles/000/treatment-standards-rehabilitation.htm>), Restoration (<https://www.nps.gov/articles/000/treatment-standards-restoration.htm>), and Reconstruction (<https://www.nps.gov/articles/000/treatment-standards-reconstruction.htm>)—and are regulatory for NPS Grants-in-Aid programs. The **Secretary of the Interior's Standards for Rehabilitation** (<https://www.nps.gov/subjects/taxincentives/secretarys-standards-rehabilitation.htm>) (**36 CFR Part 67, 1990**), which are included in the Treatment Standards, are regulatory for the

Federal Historic Preservation Tax Incentives program (<https://www.nps.gov/subjects/taxincentives/index.htm>) and are the criteria used to determine if a project qualifies as “a certified rehabilitation.” The 1990 and the 1995 versions of the Rehabilitation Standards convey the same intent and provide the same guidance, although they are worded slightly differently, and “shall” replaces “will” in the 1995 version. **The Secretary of the Interior's Standards for the Treatment of Historic Properties**, in particular the Standards for Rehabilitation, are intended as general guidance for work on all historic properties, are widely used, and have been adopted at the Federal, State, and local levels.

Choosing Rehabilitation as a Treatment

In **Rehabilitation**, historic building materials and character-defining features are protected and maintained as they are in the treatment Preservation. However, greater latitude is given in the Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (<https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf>) to replace extensively deteriorated, damaged, or missing features using either the same material or compatible substitute materials. Of the four treatments, only Rehabilitation allows alterations and the construction of a new addition, if necessary for a continuing or new use for the historic building.

When repair and replacement of deteriorated features are necessary; when alterations or additions to the property are planned for a new or continued use; and when its depiction at a particular time is not appropriate, Rehabilitation may be considered as a treatment. Prior to undertaking work, a documentation plan for Rehabilitation should be developed.

The Guidelines for the Treatment of Historic Properties (<https://www.nps.gov/orgs/1739/upload/treatment-guidelines-2017-part1-preservation-rehabilitation.pdf>) illustrate the practical application of the Standards for Rehabilitation to historic properties.

History of the Standards

Read a History of The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring & Reconstructing Historic Buildings. (<https://www.nps.gov/articles/000/treatment-standards-history.htm>)

Choosing the most appropriate treatment for a building requires careful decision making about a building's historical significance, as well as taking into account a number of other considerations:

- **Level of Significance.** National Historic Landmarks, designated for their “exceptional significance in American history,” and other properties important for their interpretive value may be candidates for Preservation or Restoration. Rehabilitation, however, is the most commonly used treatment for the majority of historic buildings. Reconstruction has the most limited application because so few resources that are no longer extant can be documented to the degree necessary to accurately recreate the property in a manner that conveys its appearance at a particular point in history.
- **Physical condition.** Preservation may be appropriate if distinctive materials, features, and spaces are essentially intact and convey the building's historical significance. If the building requires more extensive repair and replacement, or if alterations or a new addition are necessary for a new use, then Rehabilitation is probably the most appropriate treatment.
- **Proposed use.** Many historic buildings can be adapted for a new use or updated for a continuing use without seriously impacting their historic character. However, it may be very difficult or impossible to convert some special-use properties for new uses without major alterations, resulting in loss of historic character and even integrity.
- **Code and other regulations.** Regardless of the treatment, regulatory requirements must be addressed. But without a sensitive design approach such work may damage a building's historic materials and negatively impact its character. Therefore, because the ultimate use of the building determines what requirements will have to be met, some potential uses of a historic building may not be appropriate if the necessary modifications would not preserve the building's historic character. This includes adaptations to address natural hazards as well as sustainability.

APPENDIX 28

Opposition Communications