Department of Economic and Community Development

State Historic Preservation Office

May 10, 2022

Mr. David R. George
Heritage Consultants
PO Box 310249
Newington, CT 06131

Subject: Phase IB Cultural Resource Reconnaissance Survey
Battery Storage Facility
North Larkey Road
Oxford, Connecticut
ENV-22-0705

Dear Mr. George:

The State Historic Preservation Office (SHPO) has reviewed the archeological survey report prepared by Heritage Consultants, LLC (Heritage), dated January, 2022. The proposed activities are under the jurisdiction of the Connecticut Siting Council and are subject to review by this office pursuant to the Connecticut Environmental Policy Act (CEPA). The proposed undertaking includes the construction of a batter storage facility, which is to occupy an approximately 2.7 acre project area, bordered to the north and south by wooded areas, North Larkey Road on the east, and a former railroad corridor, now Larkin State Park Trail, to the west. Access to the facility is to be from an existing electrical substation, located to the south at 3 Commerce Drive. The submitted reports are well-written, comprehensive, and meet the standards set forth in the *Environmental Review Primer for Connecticut's Archaeological Resources*.

One previously recorded archaeological site, the Christian Street Site (108-22), is located within 1 mile of the project area; however, it will not be impacted by the proposed project. No properties listed or previously determined to be eligible for listing on either the State or National Register of Historic Places are located within 1 mile of the project area.

Phase IB of the reconnaissance survey consisted of subsurface testing of the areas determined to have moderate to high archaeological sensitivity. A total of 31 of 31 planned shovel tests were excavated successfully throughout the proposed work area. No cultural features or materials from either historic or prehistoric periods were identified.

Department of Economic and Community Development

State Historic Preservation Office

As a result of the information submitted, SHPO concurs with the findings of the report that additional archeological investigations of the project area are not warranted and that no historic properties will be affected by the proposed activities. However, please be advised that if construction plans change to include previously uninvestigated/undisturbed areas, this office should be contacted for additional consultation.

This office appreciates the opportunity to review and comment upon this project. For additional information, please contact Marena Wisniewski, Environmental Reviewer, at (860) 500-2357 or marena.wisniewski@ct.gov.

Sincerely,

Jonathan Kinney
State Historic Preservation Officer

HERITAGE CONSULTANTS

June 11, 2021

Ms. Catherine Labadia
Staff Archaeologist
Connecticut Department of Economic & Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5
Hartford, Connecticut 06103

RE: SHPO Consultation for the Proposed Oxford Energy, LLC Battery Storage Project Along North Larkey Road in Oxford, Connecticut

Ms. Labadia:

Please find enclosed a cultural and historical resources screen for the above-referenced project in Oxford, Connecticut. The proposed project will consist of the construction of a proposed battery storage facility that will be designed to support the reliability of the local electric grid. In preparation for the proposed construction project and in support of Oxford Energy, LLC and its environmental contractor VHB, Inc., Heritage Consultants, LLC has prepared the enclosed cultural and historical resources screen for your review and comment. We respectfully request that your office review the attached cultural resources documentation and provide a comment on the need, or lack thereof, for additional cultural resource investigation of the parcel along North Larkey Road in Oxford, Connecticut

If you have any questions regarding this submission or any of its contents, please do not hesitate to contact me by phone at 860.299.6328 or via email at dgeorge@heritage-consultants.com. Thank you very much for your time and consideration. We are at your service.

Sincerely,

David R. George

David R. George, M.A., R.P.A
President & Principal Investigator

Connecticut
Department of Economic and Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | ct.gov/historic-preservation

PROJECT REVIEW COVER FORM

This is: ■ a new submittal ☐ supplemental information ☐ other Date Submitted: June 11, 2021

PROJECT INFORMATION

Project Name: Connecticut Battery Storage Projects

Project Proponent: VHB, Inc.
The individual or group sponsoring, organizing, or proposing the project.

Project Street Address: Various
Include street number, street name, and or Route Number. If no street address exists give closest intersection.

City or Town: Various County: Multiple
Please use the municipality name and **not** the village or hamlet.

PROJECT DESCRIPTION (REQUIRED)

Please summarize the project below. In a separate attachment, describe the project in detail. As applicable, provide any information regarding past land use, project area size, renovation plans, demolitions, and/or new construction.

The project will consist of the construction of multiple battery storage locations across Connecticut. The storage facilities will be designed to support the reliability of the local electrical grid

List all state and federal agencies involved in the project and indicate the funding, permit, license or approval program pertaining to the proposed project:

Agency Type	Agency Name	Program Name
☐ State ☐ Federal		
☐ State ☐ Federal		
☐ State ☐ Federal		
☐ State ☐ Federal		

If there is no state or federal agency involvement, please state the reason for your review request:

FOR SHPO USE ONLY

Based on the information submitted to our office for the above named property and project, it is the opinion of the Connecticut State Historic Preservation Office that no historic properties will be affected by the proposed activities.*

Jonathan Kinney Date
Deputy State Historic Preservation Officer

*All other determinations of effect will result in a formal letter from this office

Connecticut
Department of Economic and Community Development
State Historic Preservation Office
450 Columbus Boulevard, Suite 5 | Hartford, CT 06103 | 860.500.2300 | DECD.org

PROJECT REVIEW COVER FORM

CULTURAL RESOURCES IDENTIFICATION

Background research for previously identified historic properties within a project area may be undertaken at the SHPO's office. To schedule an appointment, please contact Catherine Labadia, 860-500-2329 or Catherine.labadia@ct.gov. Some applicants may find it advantageous to hire a qualified historic preservation professional to complete the identification and evaluation of historic properties.

Are there any historic properties listed on the State or National Register of Historic Places within the project area? (Select one)

☐ Yes ☐ No ☒ Do Not Know **If yes**, please identify: _____

Architecture

Are there any buildings, structures, or objects within the Area of Potential Effects (houses, bridges, barns, walls, etc.)? The area of potential effects means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties. If you're not sure, check "I don't know."

☐ Yes (attach clearly labeled photographs of each resource and applicable property cards from the municipality assessor)

☐ No (proceed to next section)

☒ I don't know (proceed to next section)

Date the existing building/structures/objects were constructed: _____

If the project involves rehabilitation, demolition, or alterations to existing buildings older than 50 years, provide a work plan (If window replacements are proposed, provide representative photographs of existing windows).

Archeology

Does the proposed project involve ground disturbing activities?

☒ Yes (provide below or attach a description of current and prior land use and disturbances. Attach an excerpt of the soil survey map for the project area. These can be created for free at: **https://websoilsurvey.nrcs.usda.gov**

_____

☐ No

CHECKLIST (Did you attach the following information?)

Required for all Projects	Required for Projects with architectural resources
☐ Completed Form	☐ Work plans for rehabilitation or renovation
☒ Map clearly labelled depicting project area	☐ Assessor's Property Card
☐ Photographs of current site conditions	Required for Projects with ground disturbing activities
☐ Site or project plans for new construction	☒ Soil survey map
Suggested Attachments, as needed	
☐ Supporting documents needed to explain project	☒ Supporting documents identifying historic properties
☒ Historic maps or aerials (available at http://magic.lib.uconn.edu or https://www.historicaerials.com/)	

PROJECT CONTACT

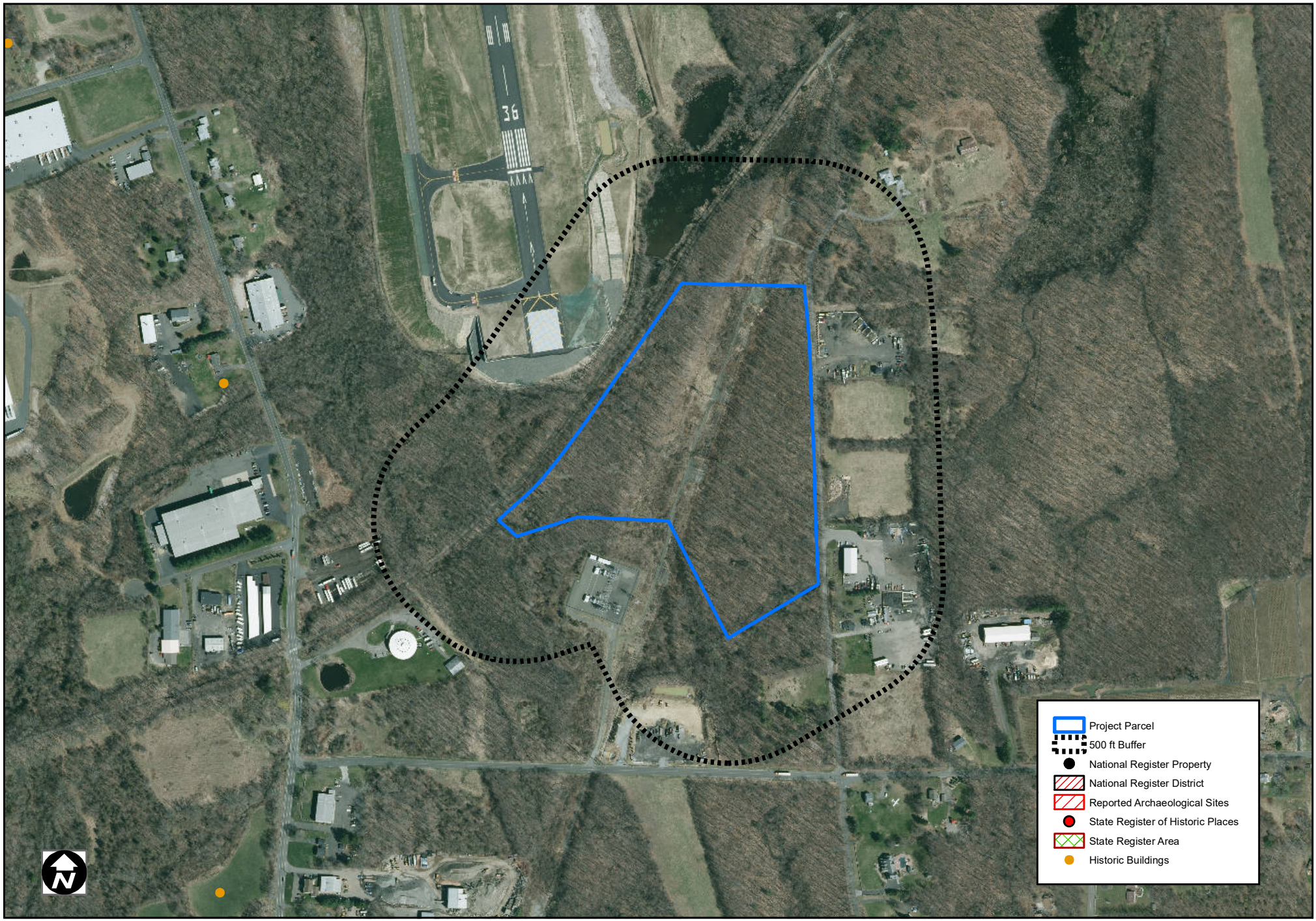
Name: David R. George Firm/Agency: Heritage Consultants, LLC

Address: P.O. Box 310249

City: Newington State: CT Zip: 06131

Phone: 860.299.6328 Email: dgeorge@heritage-consultants.com

Federal and state laws exist to ensure that agencies, or their designated applicants, consider the impacts of their projects on historic resources. At a minimum, submission of this completed form with its attachments constitutes a request for review by the Connecticut SHPO. The responsibility for preparing documentation, including the identification of historic properties and the assessment of potential effects resulting from the project, rests with the federal or state agency, or its designated applicant. The role of SHPO is to review, comment, and consult. SHPO's ability to complete a timely project review largely depends on the quality of the materials submitted. Please mail the completed form with all attachments to the attention of: Environmental Review, State Historic Preservation Office, 450 Columbus Boulevard, Suite 5, Hartford, CT. **Electronic submissions are not accepted at this time**.



Cultural Resources Screen

Oxford Energy Center, LLC - N. Larkey Road Oxford, CT

May 24, 2021 \ USGS QUAD: Southbury

0 300 600 1,200 Feet

JANUARY 2022

PHASE IB CULTURAL RECONNAISSANCE SURVEY OF THE PROPOSED OXFORD ENERGY CENTER, LLC BATTERY STORAGE FACILITY IN OXFORD, CONNECTICUT

PREPARED FOR:

100 GREAT MEADOW ROAD
SUITE 200
WETHERSFIELD, CT 06109

PREPARED BY:

P.O. BOX 310249
NEWINGTON, CONNECTICUT 06131

ABSTRACT

This report presents the results of a Phase IB cultural resources reconnaissance survey for the proposed Oxford Energy Center, LLC Battery Storage Facility in Oxford, Connecticut. The proposed construction project will include a battery storage facility near North Larkey Road that was located in a moderate/high archaeologically sensitive area. The Phase IB survey was completed in December of 2021. A total of 31 planned shovel test pits were excavated during the fieldwork. Despite the field effort, no cultural materials or evidence of cultural features were identified during the Phase IB reconnaissance survey. It was determined that no impacts to significant cultural resources are anticipated by construction of the proposed battery storage facility and no additional archaeological examination of the development area is recommended prior to construction.

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER I
INTRODUCTION

This report presents the results of a Phase IB cultural resources reconnaissance survey of the proposed Oxford Energy Center, LLC Battery Storage Facility in Oxford, Connecticut (Figure 1). Vanasse Hangen Brustlin, Inc., (VHB), requested that Heritage Consultants, LLC (Heritage) complete the survey as part of the planning process for the proposed construction project. A previously completed Phase IA cultural resources review of the project area was completed by Heritage in December of 2021 and it was determined that 2.7 acres of land retained moderate/high archaeological sensitivity. A Phase IB cultural reconnaissance survey of the project area was recommended and completed by Heritage in December of 2021. All work associated with this project was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Project Description and Methods Overview

The proposed project area is located to the east of an existing Eversource Energy powerline corridor and just north of an electrical substation at 3 Commerce Drive in Oxford. A former railroad corridor, now the Larkin State Park Trail, borders the western side of the project area and is actively used by local residents. North Larkey Road borders the project area to the east. The project area is currently wooded with oak, maple, and beech species present. The area also contains wetlands associated with an unnamed branch of the Little River to the southeast, southwest, and northwest. This part of Oxford is mostly commercially zoned with various businesses located in the vicinity, as well as the Waterbury-Oxford Airport. The airport is a general aviation facility that encompasses 424 acres of land just to the northwest of the project area (Figure 2). At the time of survey, the project area was characterized by low slopes that ranged in elevation from 200 m (657 ft) NGVD to 207 m (678 ft) NGVD.

The current Phase IB cultural resources reconnaissance survey consisted of the completion of the following tasks: 1) a contextual overview of the project region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously completed cultural resources surveys and previously recorded cultural resources in the region encompassing the study area; 3) a review of readily available historical maps and aerial imagery depicting the study area in order to identify potential historical resources and/or areas of past disturbance; and 4) subsurface testing of the Facility area.

Project Results and Management Recommendations Overview

During the current Phase IB cultural resources survey, a total of 31 of 31 (100 percent) planned shovel tests were excavated throughout the study area. Shovel tests were excavated at 15 m (49.2 ft) intervals along nine parallel survey transects spaced 15 m (49.2 ft) apart. Despite the field effort, no cultural materials or evidence of cultural features were identified during the Phase IB reconnaissance survey. It was determined that no impacts to significant cultural resources are anticipated by construction of the proposed Facility and therefore, no additional archaeological examination of the project parcel is recommended prior to construction.

Project Personnel

Key personnel for this project included David R. George, M.A., R.P.A (Principal Investigator); Antonio Medina, B.A. (Operations Supervisor); Renee Petruzelli, M.A., R.P.A. (Project Archaeologist); Matthew Deno, M.A., (Field Supervisor); Barbara Sternal, M.A., (Historian); and Jeffrey Brown, B.A. (GIS Specialist).

CHAPTER II
NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the proposed Battery Storage Facility in Oxford, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both prehistoric and historical period site selection. These include general ecological conditions, as well as types of fresh water sources present, degree of slopes, and soils situated within a given project area. The remainder of this chapter provides a brief overview of the ecology, hydrological resources, and soils present within the project item locations and the larger region in general.

Ecoregions of Connecticut

Throughout the Pleistocene and Holocene Periods, Connecticut has undergone numerous environmental changes. Variations in climate, geology, and physiography have led to the "regionalization" of Connecticut's modern environment. It is clear, for example, that the northwestern portion of the state has different natural characteristics than the coastline. Recognizing this fact, Dowhan and Craig (1976), as part of their study of the distribution of rare and endangered species in Connecticut, subdivided the state into various ecoregions. Dowhan and Craig (1976:27) defined an ecoregion as:

> "an area characterized by a distinctive pattern of landscapes and regional climate as expressed by the vegetation composition and pattern, and the presence or absence of certain indicator species and species groups. Each ecoregion has a similar interrelationship between landforms, local climate, soil profiles, and plant and animal communities. Furthermore, the pattern of development of plant communities (chronosequences and toposequences) and of soil profile is similar in similar physiographic sites. Ecoregions are thus natural divisions of land, climate, and biota."

Dowhan and Craig defined nine major ecoregions for the State of Connecticut. They are based on regional diversity in plant and animal indicator species (Dowhan and Craig 1976). Only one of the ecoregions are germane to the current investigation: Southwest Hills Ecoregion. A summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the proposed structure replacement areas.

<u>Southwest Hills Ecoregion</u>

The Southwest Hills ecoregion consists of a near coastal upland region located within 48.3 km (25 mi) of Long Island Sound (Dowhan and Craig 1976:35). It is characterized by "low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography" (Dowhan and Craig 1976:35). Elevations in the Southwest Hills ecoregion range from 76.2 to 228.6 m (250 to 750 ft) above sea level (Bell 1985), with maximum elevations of just under 304.8 m (1,000 ft) NGVD in some places. The bedrock of the region is primarily metamorphic in origin, with north trending belts of Paleozoic gneisses and schists present (Bell 1985; Dowhan and Craig 1976). Soils in this ecoregion have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys (Dowhan and Craig 1976).

Hydrology in the Vicinity of the Project Item

The Facility is situated within a region that contains to several sources of freshwater, including the Housatonic River, Jacks Brook, Little River, and Riggs Street Brook, as well as several unnamed streams,

ponds, and wetlands. These freshwater sources may have served as resource extraction areas for Native American and historical populations. Previously completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for prehistoric occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources.

Soils Comprising the Project Item

Soil formation is the direct result of the interaction of many variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to various diagenic and taphonomic processes. Different classes of artifacts may be preferentially protected, or unaffected by these processes, whereas others may deteriorate rapidly. Cyclical wetting and drying, freezing, and thawing, and compression can accelerate chemically and mechanically the decay processes for animal bones, shells, lithics, ceramics, and plant remains. Lithic and ceramic artifacts are largely unaffected by soil pH, whereas animal bones and shells decay more quickly in acidic soils. In contrast, acidic soils enhance the preservation of charred plant remains.

A review of the soils within the study area is presented below. The project item is characterized by the presence of three major soil types: Paxton and Montauk Soils (soil codes 84B and 85B), and Woodbridge Soils (soil code 45B) (Figure 3). A review of these soils shows that they consist of well drained loams; they are the types of soils that are typically correlated with prehistoric and historical use and occupation. Descriptive profiles for each soil type are presented below; they were gathered from the National Resources Conservation Service.

<u>Paxton Soils</u>

The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 45 percent. A typical profile associated with Paxton soils is as follows: **Ap** -- 0 to 20 cm; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary; **Bw1** -- 20 to 38 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; few earthworm casts; strongly acid; gradual wavy boundary; **Bw2** -- 38 to 66 cm; olive brown (2.5Y 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; clear wavy boundary; and **Cd** -- 66 to 165 cm; olive (5Y 5/3) gravelly fine sandy loam; medium plate-like divisions; massive; very firm, brittle; 25 percent gravel; many dark coatings on plates; strongly acid. (https://soilseries.sc.egov.usda.gov/OSD_Docs/P/PAXTON.html)

<u>Montauk Soils</u>

The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines. Slope ranges from 0 to 35 percent. A typical profile associated with Montauk soils is as follows: **Ap**-- 0 to 10 cm; very dark gray (10YR 3/1) loam; moderate fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 2 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.1); clear smooth boundary; **BA**-- 10 to 34 cm; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 4 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary;

Bw1-- 34 to 65 cm; dark yellowish brown (10YR 4/6) loam; moderate coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 6 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary; **Bw2**-- 65 to 87 cm; yellowish brown (10YR 5/6) sandy loam; moderate medium and coarse subangular blocky structure; friable; many very fine, fine, and coarse roots; many fine and medium pores; 5 percent gravel and 1 percent cobbles; extremely acid (pH 4.3); clear smooth boundary; **2Cd1**-- 87 to 101 cm; strong brown (7.5YR 5/6) gravelly loamy sand; moderate medium plates; firm; few fine roots; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; very strongly acid (pH 4.7); clear wavy boundary; and **2Cd2**-- 101 to 184 cm; dark yellowish brown (10YR 4/6) gravelly loamy sand; moderate medium plates; firm; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; strongly acid (pH 5.1).(https://soilseries.sc.egov.usda.gov/OSD_Docs/M/MONTAUK.html)

Woodbridge Soils

The Woodbridge series consists of moderately well drained loamy soils formed in lodgment till. They are very deep to bedrock and moderately deep to a densic contact. They are nearly level to moderately steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 25 percent. A typical profile associated with Woodbridge soils is as follows: **Ap**--0 to 18 cm; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many fine and medium roots; few very dark brown (10YR 2/2) earthworm casts; 5 percent gravel; moderately acid; abrupt wavy boundary. **Bw1**--18 to 46 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; moderately acid; gradual wavy boundary. **Bw2**-- 46 to 66 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; few medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary. **Bw3**--66 to 76 cm; light olive brown (2.5Y 5/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; clear wavy boundary. **Cd1**--76 to 109 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; 20 percent gravel; many medium prominent strong brown (7.5YR 5/8) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary. **Cd2**--109 to 165 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; few fine prominent very dark brown (10YR 2/2) coatings on plates; 25 percent gravel; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; moderately acid. (https://soilseries.sc.egov.usda.gov/OSD_Docs/M/WOODBRIDGE.html)

Summary

The natural setting of the area containing the project area in Oxford, Connecticut is common throughout the Southwest Hills ecoregion. The region is characterized by low rolling hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography. The region demonstrates that there is substantial natural diversity remaining even though the area has undergone modifications and adaptations since the retreat of the glaciers. The proximity of the project area to the Little River would have provided excellent resource extraction areas for prehistoric and historical populations, therefore, archaeological deposits could be expected near or within the proposed impact areas.

CHAPTER III
PREHISTORIC SETTING

Introduction

Prior to the late 1970s and early 1980s, few systematic archaeological surveys of large portions of the state of Connecticut had been undertaken. Rather, the prehistory of the region was studied at the site level. Sites chosen for excavation were highly visible and located in the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the prehistory of Connecticut was developed. It was suggested that the upland portions of the state, i.e., the northeastern and northwestern hills ecoregions, were little used and rarely occupied by prehistoric Native Americans, while the coastal zone, i.e., the eastern and western coastal and the southeastern and southwestern hills ecoregions, were the focus of settlements and exploitation in the prehistoric era. This interpretation remained unchallenged until the 1970s and 1980s when several town-wide and regional archaeological studies were completed. These investigations led to the creation of several archaeological phases that subsequently were applied to understand the prehistory of Connecticut. The remainder of this chapter provides an overview of the prehistoric setting of the region encompassing Structures 6502A and 6504A.

Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.])

The earliest inhabitants of the area encompassing the State of Connecticut, who have been referred to as Paleo-Indians, arrived in the area by ca., 12,000 B.P. (Gramly and Funk 1990; Snow 1980). Due to the presence of large Pleistocene mammals at that time and the ubiquity of large fluted projectile points in archaeological deposits of this age, Paleo-Indians often have been described as big-game hunters (Ritchie and Funk 1973; Snow 1980); however, as discussed below, it is more likely that they hunted a broad spectrum of animals.

While there have been numerous surface finds of Paleo-Indian projectile points throughout the State of Connecticut, only two sites, the Templeton Site (6-LF-21) in Washington, Connecticut and the Hidden Creek Site (72-163) in Ledyard, Connecticut, have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980). The Templeton Site (6-LF-21) is in Washington, Connecticut and was occupied between 10,490 and 9,890 years ago (Moeller 1980). In addition to a single large and two small fluted points, the Templeton Site produced a stone tool assemblage consisting of gravers, drills, core fragments, scrapers, and channel flakes, which indicates that the full range of stone tool production and maintenance took place at the site (Moeller 1980). Moreover, the use of both local and non-local raw materials was documented in the recovered tool assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant stone sources, the use of which likely occurred during movement from region to region.

The only other Paleo-Indian site studied in detail in Connecticut is the Hidden Creek Site (72-163) (Jones 1997). The Hidden Creek Site is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut. While excavation of the Hidden Creek Site produced evidence of Terminal Archaic and Woodland Period components (see below) in the upper soil horizons, the lower levels of the site yielded artifacts dating from the Paleo-Indian era. Recovered Paleo-Indian artifacts included broken bifaces, side-scrapers, a fluted preform, gravers, and end-scrapers. Based on the types and number of tools present, Jones (1997:77) has hypothesized that the Hidden Creek Site represented a short-term occupation, and that separate stone tool reduction and

rejuvenation areas were present.

While archaeological evidence for Paleo-Indian occupation is scarce in Connecticut, it, combined with data from the West Athens Road and King's Road Site in the Hudson drainage and the Davis and Potts Sites in northern New York, supports the hypothesis that there was human occupation of the area not long after ca. 12,000 B.P. (Snow 1980). Further, site types currently known suggest that the Paleo-Indian settlement pattern was characterized by a high degree of mobility, with groups moving from region to region in search of seasonally abundant food resources, as well as for the procurement of high-quality raw materials from which to fashion stone tools.

Archaic Period (10,000 to 2,700 B.P.)

The Archaic Period, which succeeded the Paleo-Indian Period, began by ca., 10,000 B.P. (Ritchie and Funk 1973; Snow 1980), and it has been divided into three subperiods: Early Archaic (10,000 to 8,000 B.P.), Middle Archaic (8,000 to 6,000 B.P.), and Late Archaic (6,000 to 3,400 B.P.). These periods were devised to describe all non-farming, non-ceramic producing populations in the area. Regional archeologists recently have recognized a final "transitional" Archaic Period, the Terminal Archaic Period (3,400-2,700 B.P.), which was meant to describe those groups that existed just prior to the onset of the Woodland Period and the widespread adoption of ceramics into the toolkit (Snow 1980; McBride 1984; Pfeiffer 1984, 1990; Witthoft 1949, 1953).

Early Archaic Period (10,000 to 8,000 B.P.)

To date, few Early Archaic sites have been identified in southern New England. As a result, researchers such as Fitting (1968) and Ritchie (1969), have suggested a lack of these sites likely is tied to cultural discontinuity between the Early Archaic and preceding Paleo-Indian Period, as well as a population decrease from earlier times. However, with continued identification of Early Archaic sites in the region, and the recognition of the problems of preservation, it is difficult to maintain the discontinuity hypothesis (Curran and Dincauze 1977; Snow 1980).

Like their Paleo-Indian predecessors, Early Archaic sites tend to be small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions the United States are represented by projectile points of the Kirk series (Ritchie and Funk 1973) and by Kanawha types (Coe 1964), sites of this age in southern New England are identified recognized on the basis of a series of ill-defined bifurcate-based projectile points. These projectile points are identified by the presence of their characteristic bifurcated base, and they generally are made from high quality raw materials. Moreover, finds of these projectile points have rarely been in stratified contexts. Rather, they occur commonly either as surface expressions or intermixed with artifacts representative of later periods. Early Archaic occupations, such as the Dill Farm Site and Sites 6LF64 and 6LF70 in Litchfield County, an area represented by camps that were relocated periodically to take advantage of seasonally available resources (McBride 1984; Pfeiffer 1986). In this sense, a foraging type of settlement pattern was employed during the Early Archaic Period.

Middle Archaic Period (8,000 to 6,000 B.P.)

By the onset of the Middle Archaic Period, essentially modern deciduous forests had developed in the region (Davis 1969). It is at this time that increased numbers and types of sites are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site, which is in Manchester, New Hampshire and studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. In fact, Dincauze (1976) obtained several radiocarbon dates from the Middle Archaic component of the

Neville Site. The dates, associated with the then-newly named Neville type projectile point, ranged from 7,740±280 and 7,015±160 B.P. (Dincauze 1976).

In addition to Neville points, Dincauze (1976) described two other projectile points styles that are attributed to the Middle Archaic Period: Stark and Merrimac projectile points. While no absolute dates were recovered from deposits that yielded Stark points, the Merrimac type dated from 5,910±180 B.P. Dincauze argued that both the Neville and later Merrimac and Stark occupations were established to take advantage of the excellent fishing that the falls situated adjacent to the site area would have afforded Native American groups. Thus, based on the available archaeological evidence, the Middle Archaic Period is characterized by continued increases in diversification of tool types and resources exploited, as well as by sophisticated changes in the settlement pattern to include different site types, including both base camps and task-specific sites (McBride 1984:96)

Late Archaic Period (6,000 to 3,700 B.P.)

The Late Archaic Period in southern New England is divided into two major cultural traditions that appear to have coexisted. They include the Laurentian and Narrow-Stemmed Traditions (Funk 1976; McBride 1984; Ritchie 1969a and b). Artifacts assigned to the Laurentian Tradition include ground stone axes, adzes, gouges, ulus (semi-lunar knives), pestles, atlatl weights, and scrapers. The diagnostic projectile point forms of this time period in southern New England include the Brewerton Eared-Notched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a). In general, the stone tool assemblage of the Laurentian Tradition is characterized by flint, felsite, rhyolite, and quartzite, while quartz was largely avoided for stone tool production.

In terms of settlement and subsistence patterns, archaeological evidence in southern New England suggests that Laurentian Tradition populations consisted of groups of mobile hunter-gatherers. While a few large Laurentian Tradition occupations have been studied, sites of this age generally encompass less than 500 m^2 (5,383 ft^2). These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1978, 1984:252). Finally, subsistence strategies of Laurentian Tradition focused on hunting and gathering of wild plants and animals from multiple ecozones.

The second Late Archaic tradition, known as the Narrow-Stemmed Tradition, is unlike the Laurentian Tradition, and it likely represents a different cultural adaptation. The Narrow-Stemmed tradition is recognized by the presence of quartz and quartzite narrow stemmed projectile points, triangular quartz Squibnocket projectile points, and a bipolar lithic reduction strategy (McBride 1984). Other tools found in Narrow-Stemmed Tradition artifact assemblages include choppers, adzes, pestles, antler and bone projectile points, harpoons, awls, and notched atlatl weights. Many of these tools, notably the projectile points and pestles, indicate a subsistence pattern dominated by hunting and fishing, as well the collection of a wide range of plant foods (McBride 1984; Snow 1980:228).

The Terminal Archaic Period (3,700 to 2,700 B.P.)

The Terminal Archaic, which lasted from ca., 3,700 to 2,700 BP, is perhaps the most interesting, yet confusing of the Archaic Periods in southern New England prehistory. Originally termed the “Transitional Archaic” by Witthoft (1953) and recognized by the introduction of technological innovations, e.g., broadspear projectile points and soapstone bowls, the Terminal Archaic has long posed problems for regional archeologists. While the Narrow-Stemmed Tradition persisted through the Terminal Archaic and into the Early Woodland Period, the Terminal Archaic is coeval with what appears to be a different

technological adaptation, the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is recognized in southern New England by the presence of a new stone tool industry that was based on the use of high-quality raw materials for stone tool production and a settlement pattern different from the "coeval" Narrow-Stemmed Tradition.

The Susquehanna Tradition is based on the classification of several Broadspear projectile point types and associated artifacts. There are several local sequences within the tradition, and they are based on projectile point type chronology. Temporally diagnostic projectile points of these sequences include the Snook Kill, Susquehanna Broadspear, Mansion Inn, and Orient Fishtail types (Lavin 1984; McBride 1984; Pfeiffer 1984). The initial portion of the Terminal Archaic Period (ca., 3,700-3,200 BP) is characterized by the presence of Snook Kill and Susquehanna Broadspear projectile points, while the latter Terminal Archaic (3,200-2,700 BP) is distinguished by the use Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic that interior cord marked, grit tempered, thick walled ceramics with conoidal (pointed) bases made their initial appearance in the Native American toolkit. These are the first ceramics in the region, and they are named Vinette I (Ritchie 1969a; Snow 1980:242); this type of ceramic vessel appears with much more frequency during the ensuing Early Woodland Period. In addition, the adoption and widespread use of soapstone bowls, as well as the implementation subterranean storage, suggests that Terminal Archaic groups were characterized by reduced mobility and longer-term use of established occupation sites (Snow 1980:250).

Finally, while settlement patterns appeared to have changed, Terminal Archaic subsistence patterns were analogous to earlier patterns. The subsistence pattern still was diffuse in nature, and it was scheduled carefully. Typical food remains recovered from sites of this period consist of fragments of white-tailed deer, beaver, turtle, fish, and various small mammals. Botanical remains recovered from the site area consisted of *Chenopodium* sp., hickory, butternut, and walnut (Pagoulatos 1988:81). Such diversity in food remains suggests at least minimal use of a wide range of microenvironments for subsistence purposes.

Woodland Period (2,700 to 350 B.P.)

Traditionally, the advent of the Woodland Period in southern New England has been associated with the introduction of pottery; however, as mentioned above, early dates associated with pottery now suggest the presence of Vinette I ceramics appeared toward the end of the preceding Terminal Archaic Period (Ritchie 1969a; McBride 1984). Like the Archaic Period, the Woodland Period has been divided into three subperiods: Early, Middle, and Late Woodland. The various subperiods are discussed below.

<u>Early Woodland Period (ca., 2,700 to 2,000 B.P.)</u>

The Early Woodland Period of the northeastern United States dates from ca., 2,700 to 2,000 B.P., and it has thought to have been characterized by the advent of farming, the initial use of ceramic vessels, and increasingly complex burial ceremonialism (Griffin 1967; Ritchie 1969a and 1969b; Snow 1980). In the Northeast, the earliest ceramics of the Early Woodland Period are thick walled, cord marked on both the interior and exterior, and possess grit temper.

Careful archaeological investigations of Early Woodland sites in southern New England have resulted in the recovery of narrow stemmed projectile points in association with ceramic sherds and subsistence remains, including specimens of White-tailed deer, soft and hard-shell clams, and oyster shells (Lavin and Salwen: 1983; McBride 1984:296-297; Pope 1952). McBride (1984) has argued that the combination

of the subsistence remains and the recognition of multiple superimposed cultural features at various sites indicates that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

Middle Woodland Period (2,000 to 1,200 B.P.)

The Middle Woodland Period is marked by an increase in the number of ceramic types and forms utilized (Lizee 1994a), as well as an increase in the amount of exotic lithic raw material used in stone tool manufacture (McBride 1984). The latter suggests that regional exchange networks were established, and that they were used to supply local populations with necessary raw materials (McBride 1984; Snow 1980). The Middle Woodland Period is represented archaeologically by narrow stemmed and Jack's Reef projectile points; increased amounts of exotic raw materials in recovered lithic assemblages, including chert, argillite, jasper, and hornfels; and conoidal ceramic vessels decorated with dentate stamping. Ceramic types that are indicative of the Middle Woodland Period includes Linear Dentate, Rocker Dentate, Windsor Cord Marked, Windsor Brushed, Windsor Plain, and Hollister Stamped (Lizee 1994a: 200).

In terms of settlement patterns, the Middle Woodland Period is characterized by the occupation of village sites by large co-residential groups that utilized native plant and animal species for food and raw materials in tool making (George 1997). These sites were the principal place of occupation, and they were positioned close to major river valleys, tidal marshes, estuaries, and the coastline, all of which would have supplied an abundance of plant and animal resources (McBride 1984:309). In addition to villages, numerous temporary and task-specific sites were utilized in the surrounding upland areas, as well as in closer ecozones such as wetlands, estuaries, and floodplains. The use of temporary and task-specific sites to support large village populations indicates that the Middle Woodland Period was characterized by a resource acquisition strategy that can best be termed as logistical collection (McBride 1984:310).

Late Woodland Period (ca., 1,200 to 350 B.P.)

The Late Woodland Period in southern New England dates from ca., 1,200 to 350 B.P., and it is characterized by the earliest evidence for the use of corn in the lower Connecticut River Valley (Bendremer 1993; Bendremer and Dewar 1993; Bendremer et al. 1991; George 1997; McBride 1984); an increase in the frequency of exchange of non-local lithics (Feder 1984; George and Tryon 1996; McBride 1984; Lavin 1984); increased variability in ceramic form, function, surface treatment, and decoration (Lavin 1980, 1986, 1987; Lizee 1994a, 1994b); and a continuation of a trend towards larger, more permanent settlements in riverine, estuarine, and coastal ecozones (Dincauze 1974; McBride 1984; Snow 1980).

Stone tool assemblages associated with Late Woodland occupations, especially village-sized sites, are functionally variable and they reflect plant and animal resource processing and consumption on a large scale. Finished stone tools recovered from Late Woodland sites include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools. These tools were used in activities ranging from hide preparation to plant processing to the manufacture of canoes, bowls, and utensils, as well as other settlement and subsistence-related items (McBride 1984; Snow 1980). Finally, ceramic assemblages recovered from Late Woodland sites are as variable as the lithic assemblages. Ceramic types identified include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised (Lavin 1980, 1988a, 1988b; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947). These types are

more diverse stylistically than their predecessors, with incision, shell stamping, punctation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Prehistory

The prehistory of Connecticut spans from ca., 12,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. Much of the prehistoric era is characterized by local Native American groups who practiced a subsistence pattern based on a mixed economy of hunting and gathering wild plant and animal resources. It is not until the Late Woodland Period that incontrovertible evidence for the use of domesticated species is available. Further, settlement patterns throughout the prehistoric era shifted from seasonal occupations of small co-residential groups to large aggregations of people in riverine, estuarine, and coastal ecozones. In terms of the region containing the proposed project items, a variety of prehistoric site types may be expected. These range from seasonal camps utilized by Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV
HISTORICAL OVERVIEW

Introduction

The proposed project area is located in northern Oxford, in New Haven County, Connecticut. Incorporated in 1798, Oxford was originally part of the city of Derby and the town of Southbury. Oxford began as an agricultural settlement and while during its history some industrial development took place along the Housatonic River, the town has retained its rural character and functions as a residential suburb. The remainder of this chapter provides an overview history of the town of Oxford, as well as historical data specific to the proposed project area.

Native American History

Southwestern Connecticut was the territory of the Pootatuck and Paugussett tribes. The homelands of these groups ran from the coast of Long Island Sound to as far northward as present-day Waterbury and Woodbury. At the time of contact with the Europeans, the lifestyle of the indigenous peoples of southern New England had been the same for hundreds of years. Native Americans in the area relied on hunting and fishing for sustenance, and cultivated various crops, including maize, beans, sunflowers, and tobacco. They supplemented these foods seasonally by collecting shellfish, fruits, and plants during warmer periods; and gathering nuts, roots, and tubers during colder periods. Additionally, the natives came together in large groups to hunt deer in the fall and early winter. In terms of housing, indigenous peoples lived with their immediate or extended families in round wigwams or oval houses. They also resided in longer rectangular dwellings, which housed multiple families. Trade was common among native peoples and this practice was extended to the European arrivals. However, interactions with Europeans meant exposure to new diseases, including measles, tuberculosis, and cholera. Because indigenous peoples had no immunity to these afflictions, they died in large numbers in the early seventeenth century. By 1650, it is possible that as much as 90 percent of Native Americans in New England had perished. The diminished population and the fact that Native Americans had an oral tradition rather than a written one mean that there is little recorded information about the natives that lived in the Oxford area in the seventeenth century and earlier (Lavin 2013).

While there is limited information about the Pootatucks and Paugussetts prior to European contact, several post-contact forts and some of the movements of these tribes has been documented. In the early 1670s, the Pootatucks built and maintained a fort on the Housatonic River in present-day Derby at Fort Hill. Throughout the seventeenth and eighteenth centuries, they also had a tribal community in the area that is now Southbury. The Paugussetts had four forts: one in Milford, one in Turkey Hill in Derby, one on the Housatonic River in Derby, and one near the town line between Osborndale State Park in Derby and the Naugatuck River in Ansonia (Lavin 2013). The natives congregated at another site until about 1680, which was known as “Chusetown,” near a falls on the Housatonic River in present-day Seymour. The earliest known Paugussett sachem was Ansantaway, who moved from Milford further north to Turkey Hill in the 1660s, presumably due to incursion by the European colonists. Some tribe members continued to live in Turkey Hill until 1830. In approximately 1710, the Paugussetts from an area called Great Neck, near the convergence of the Housatonic and Naugatuck Rivers, moved to a region called Wesquantook (later known as Squantook) in modern-day Seymour, from where they eventually scattered to a variety of other locations (Orcutt and Beardsley 1880).

Oxford in the Colonial Era through Present Day

The boundaries of the settlement of Derby originally encompassed the modern-day municipalities of Ansonia, Seymour, and Oxford. English colonists made approximately 25 purchases of land in the Derby area from Native Americans, though indigenous peoples understood early land transactions to be about land usage rather than ownership. Five of these purchases involved the Oxford region, though many of them were overlapping and duplicative. The first, dated from 1687, was for the southern part of the town known as Rockhouse Hill. In 1698, another group of Native Americans sold a tract of land adjoining the Housatonic River called Wesquantuck and in 1701, the local colonial residents bought what became known as Camp's Mortgage. The last two purchases, known as the North Purchase and Quaker's Farm, took place in 1710 and 1728, respectively (Oxford Historical Society 1973).

The first known English colonization in the Oxford section was in 1678. Due to the increase in the number of settlers in the area, by 1680 it became necessary to establish the location of Derby's northern town line, which is now Oxford's northern town line (Oxford Historical Society 1973). As of 1741, the General Assembly granted a petition for a new ecclesiastical society and the bounds of this society included a slightly larger area than the present town of Oxford (Orcutt and Beardsley 1880). As of 1795, there were 232 taxable persons in Oxford Society. These inhabitants petitioned the General Assembly for separation and in 1798, the town of Oxford was incorporated (Litchfield and Hoyt 1960). By 1800, the population of the new town was still quite small, consisting of only 1,410 residents (Connecticut 2021a).

In the early nineteenth century, Oxford was crisscrossed by various toll-funded turnpike roads. One of the earliest of these was the Oxford Turnpike (now Route 67), which was chartered in 1795. This road ran between Southbury and Derby. Several other turnpikes were established during this time, which fostered some growth in the town (Wood 1919). As of 1819, Oxford was generating goods for the New Haven and New York markets, including items such as wheat, rye, grass, milk products, fruits, and meat. The town also produced an abundance of lumber and had an active shad fishery on the Housatonic River, located on its southwestern boundary. Additionally, Oxford's proximity to the river encouraged industrial activity and the town became a major wool producer (Litchfield and Hoyt 1960). Oxford had a woolen factory, two fulling mills, and three carding machines, as well as several lime kilns, a hat factory, three grain mills, and six tanneries (Pease and Niles 1819). By 1836, some of the earlier industries had disappeared and there were three satinet factories and a hat factory in town (Barber 1836).

In the latter half of the nineteenth century, industry began to fade, partly due to the introduction of railroads. The Naugatuck Railroad opened in 1849 and ran on the eastern bank of the Housatonic River through Oxford. In the following years, factories started to disappear, mainly because the railroads facilitated access to coal, which was a more powerful source of fuel than the river. This meant that many of Oxford's manufacturers, who were situated on the river and relied on hydropower, faced an abundance of new competitors. As a result, numerous factories closed or moved to other locations, taking job opportunities with them (Litchfield and Hoyt 1960). Oxford's population fell to 1,269 residents by 1860, recovered slightly over the next decade, and then declined for another 20 years to 902 in 1890 (Connecticut 2021b). By the late nineteenth century, Oxford's principal industry continued to be agriculture, since the various small industries of previous decades remained small or vanished entirely (Connecticut 1890; Orcutt and Beardsley 1880).

As of the early twentieth century, Oxford was a small rural town. Dairy farming gained prominence after the extension of powerlines across central Oxford in 1918. Electricity allowed farmers to keep milk cold and the prevalence of trucks facilitated shipping dairy products (Litchfield and Hoyt 1960). While this industry grew, the town's population hovered at approximately 1,000 residents for the first half of the

century. By 1960, dairy farming was the principal industry and Oxford had 3,292 residents (Connecticut 1960; Connecticut 2021c). However, much of this population increase was due to the process of suburbanization that was made possible by the widespread use of cars. The ability to commute allowed residents to accept job opportunities in factories in nearby cities such as Derby and Ansonia, and even more distant places like Bridgeport and Waterbury (Litchfield and Hoyt 1960). Even though dairy farming waned through the latter half of the twentieth and early twenty-first century, the population of Oxford continued to increase. By 2021, the town had 13,086 residents and was considered a residential suburb (AdvanceCT and CTData Collaborative 2021). Athough town officials anticipate further population growth, they intend to steer development in such a way that will allow Oxford to preserve its rural character (Oxford 2018).

History of the Project Area

The proposed project area was located in northeastern Oxford in a region that was primarily agricultural land in the nineteenth century. An excerpt from an 1852 map indicated that the project parcel was in a rural area on the western side of modern-day North Larkey Road (Figure 2: 1852). What is now called Jack's Hill Cemetery was just to the south of the parcel on North Larkey Road. Though there were no houses on the road in the vicinity of the project area, there were a number of homesteads to the west on either side of Christian Street, which ran parallel to North Larkey Road. As of 1868, the landscape had not changed drastically as the project area continued to be located amidst farmland (Figure 3: 1868). By that time, the Boston, Hartford & Eerie Railroad had built tracks through northern Oxford, which on the map run through the project parcel but in reality lay adjacent to the parcel. Though a few buildings had been added and removed over the preceding years, there had not been a significant change in the density of buildings or the composition of the landscape in the surrounding area at that time.

During the twentieth and early twenty-first centuries, the environs of the proposed project area slowly transformed from agricultural land to a commercial region. As of 1934, the project area was situated between railroad tracks and North Larkey Road and consisted of cleared and wooded farm fields (Figure 4: 1934). By that time, powerline structures had been built in a line moving northeast to southwest through the center of the project parcel. The surrounding area was comprised of farmland, with a few houses on North Larkey Road as well as on Christian Street to the west. Jack's Hill Cemetery was still visible to the south on North Larkey Road. Over the subsequent years, some minor changes took place and by 1951, much of the forested areas had experienced noticeable tree regrowth (Figure 5: 1951). The railroad line to the west of the parcel had been abandoned in 1939 and the state of Connecticut transformed the line in 1943 into a state park and riding trail for horses (State of Connecticut 2021). Commerce Drive had been established to the south of Jack's Hill Cemetery and ran east to west, connecting Christian Street with North Larkey Drive. Very few new houses had been built and at that time, the surrounding region (and the project parcel in particular) consisted of a combination of cleared and forested fields. In the decades that followed, parts of the region were developed into commercial properties and by 2019, significant changes had taken place (Figure 6: 2019). The land within the project parcel had become almost entirely reforested with a clearing for the powerline corridor running through it. A number of businesses were built to the east of the parcel on North Larkey Road as well as on Christian Street to the west. A powerline substation was situated to the south of the project parcel and Waterbury-Oxford Airport was to the northwest. Designated a general aviation airport, Waterbury-Oxford Airport supports corporate, business, and recreational flights with its one runway. Formerly a private airfield, the property was purchased by the state of Connecticut and has been open for public use since 1969 (Connecticut Airport Authority 2021). Overall, throughout this section of Oxford, land that had once been used for agricultural purposes was now developed or had been left to become reforested.

Conclusions

The historical investigation indicates that the location of the proposed project area is unlikely to be associated with any significant historical resources. Based on the location of the project area and its historical use as agricultural fields, there is the possibility of encountering remains of outbuildings, stonewalls, or other evidence of historical farming. While the project area is in the vicinity of historical homesteads, the persons who owned these homesteads were not of local, state, or national importance. Any archaeological deposits associated with the region are not likely to be considered historically significant.

CHAPTER V
PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archaeological research completed within the vicinity of the study area associated with the Oxford Battery Storage Facility in Oxford, Connecticut and it provides the comparative data necessary for assessing the results of the Phase IB survey. It also ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the project item are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, National/State Register of Historic Places properties, and inventoried historic standing structures situated in the project region. The discussion presented below are based on information currently on file at the Connecticut State Historic Preservation Office in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage also were examined during this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site forms are reflected below.

Previously Recorded Archaeological Sites and National/State Register of Historic Places Properties/Districts in the Vicinity of the Project Items

Background research for the current project included a review of previously identified archaeological sites and National/State Register of Historic Places properties/districts sites located within 0.4 km (0.25 mi) of the project area (Figures 7 and 8). This review revealed that there are no known National/State Register of Historic Places properties near the project area, a single archaeological site known as the Christian Street Site (108-22) was identified by Heritage in 2011 as part of the Christian Street road widening project sponsored by the Connecticut Department of Transportation. Phase IB survey of the site area revealed that the site consisted of a scatter of late eighteenth to nineteenth century artifacts associated with a nearby residential structure. According to the 1852 map, the structure and surrounding land was owned “A. Smith” when the site was occupied. The Christian Street Site is located well away of the current project area and will not be impacted by proposed construction (Figure 7).

CHAPTER VI
METHODS

Introduction

This chapter describes the research design and field methods used to complete the current Phase IB cultural resources reconnaissance survey the Oxford Battery Storage Facility in Oxford, Connecticut. In addition, the location and point-of-contact for the facility at which all cultural material, drawings, maps, photographs, and field notes generated during survey will be curated is provided below.

Research Design

The current Phase IB cultural resources reconnaissance survey was designed to identify all prehistoric and historical period cultural resources located within the project area. Fieldwork for the project was comprehensive in nature and project planning considered the distribution of previously recorded archaeological sites located near the structure replacement areas, as well as an assessment of the natural qualities of each project item. The methods used to complete this investigation were designed to provide complete and thorough coverage of all portions of the moderate/high sensitivity areas. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation.

Field Methods

Following the completion of all background research, the project area was determined to retain sensitivity for archaeological deposits. This area was subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, GPS recordation, and systematic shovel testing. The field strategy was designed such that the entirety of the study area was examined visually and photographed. The pedestrian survey portion of this investigation included visual reconnaissance of all areas located within and immediately adjacent to the proposed facility. The subsurface examination of the project area was completed was completed through the excavation of shovel test pits at 15 m (49 ft) intervals along nine survey transects positioned 15 m (49 ft) apart. During survey, each shovel test measured 50 x 50 centimeters (19.7 x 19.7 inches) in size and each was until glacially derived C-Horizon or wet soils were encountered. Each shovel test was excavated in 10 centimeter (3.9 inch) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 centimeter (0.25 inch) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled after it was fully documented.

Curation

Following the completion and acceptance of the Final Report of Investigations, all cultural material, drawings, maps, photographs, and field notes will be curated with:

Dr. Sarah Sportman
Office of Connecticut State Archaeology
Box U-1023
University of Connecticut
Storrs, Connecticut 06269

CHAPTER VII
RESULTS & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IB cultural resources reconnaissance survey of the Oxford Battery Storage Facility in Oxford, Connecticut. The goals of the investigation included completion of the following tasks: 1) a contextual overview of the region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded cultural resources in the region; 3) a review of readily available historical maps and aerial imagery in order to identify potential historical resources and/or areas of past disturbance; 4) pedestrian survey and photo-documentation of the project area; and 5) subsurface examination of the area deemed to retain archaeological sensitivity. All fieldwork was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources,* which is promulgated by the Connecticut State Historic Preservation Office (Poirier 1987). Results of the field effort are discussed below.

Results of the Phase IB Survey and Management Recommendations

The proposed project area is currently wooded, with oak, maple, and beech species present. The area contains wetlands associated with an unnamed branch of the Little River to the southeast, southwest, and northwest and it is situated at elevations between 200 m (657 ft) NGVD and 207 m (678 ft) NGVD. This part of Oxford is mostly commercially zoned with various businesses located in the vicinity, as well as the Waterbury-Oxford Airport.

A total of 31 of 31 (100 percent) planned survey shovel test pits were excavated during the fieldwork (Figures 9 through 14). A typical shovel test profile exhibited three soil horizons in profile and extended to a terminal depth of 80 centimeters below surface (31.5 inches below surface). The Ap-Horizon (plow zone) was characterized as a layer of dark brown (10YR 3/3) silt with medium sand and loam that reached from 0 to 26 centimeters below surface (0 to 10.2 inches) below surface. The underlying B-Horizon extended from 26 to 66 centimeters below surface (10.2 to 26 inches) below surface and was described as a layer of yellowish brown (10YR 5/6) silt with medium sand. Finally, the glacially derived C-Horizon was described as a layer of light yellowish brown (2.5Y 6/4) silt with medium sand and extended from 66 to 80 centimeters (26 to 31.5 inches) below surface.

Despite the field effort, no cultural materials, cultural features, or soil anomalies were identified in the development area associated with the proposed Facility during the Phase IB reconnaissance survey. It was determined that no impacts to significant cultural resources are anticipated by construction of the proposed Oxford Battery Storage Facility, and no additional examination of the facility area is recommended prior to construction.

BIBLIOGRAPHY

AdvanceCT and CTData Collaborative

2021 Oxford, Connecticut, 2021 Town Profile. Electronic document, https://s3-us-west-2.amazonaws.com/cerc-pdfs/2021/Oxford.pdf, accessed January 4, 2022.

Barber, John Warner

1836 *Connecticut Historical Collections*. John W. Barber, New Haven, Connecticut.

Beers, F. W.

1868 *Atlas of New London County, Connecticut*. New York: F. W. Beers, A. D. Ellis & G. G. Soule.

Bell, M.

1985 *The Face of Connecticut People, Geology, and the Land*. Bulletin 110. State Geographical Natural History Survey of Connecticut Department of Environmental Protection.

Bendremer, J.

1993 *Late Woodland Settlement and Subsistence in Eastern Connecticut*. Ph.D. Dissertation, Department of Anthropology, University of Connecticut, Storrs, Connecticut.

Bendremer, J. and R. Dewar

1993 The Advent of Maize Horticulture in New England. In *Corn and Culture in the Prehistoric New World.* Ed. by S. Johannessen and C. Hastorf. Westview Press, Boulder.

Bendremer, J., E. Kellogg and T. Largy

1991 A Grass-Lined Storage Pit and Early Maize Horticulture in Central Connecticut. *North American Archaeologist 12(4):325-349.*

Coe, J.L.

1964 The Formative Cultures of the Carolina Piedmont. *Transactions of the American Philosophical Society*, Vol. 54, Part 5. Philadelphia, Pennsylvania.

Connecticut Airport Authority

2021 *Waterbury-Oxford Airport*. https://ctairports.org/airports/waterbury-oxford/, accessed June 22, 2021.

Connecticut Environmental Conditions Online (CT ECO)

2019 Connecticut 2019 Orthophotography. Storrs, Connecticut: University of Connecticut, Connecticut Environmental Conditions Online. http://www.cteco.uconn.edu/data/flight2019/index.htm.

Connecticut, State of

1890 *State Register and Manual*. State of Connecticut, Hartford, Connecticut.

1960 *State Register and Manual*. State of Connecticut, Hartford, Connecticut.

2021a Population of Connecticut Towns 1756-1820. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1756-1820, accessed January 4, 2022.

2021b Population of Connecticut Towns 1830-1890. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1830---1890, accessed January 4, 2022.

2021c Population of Connecticut Towns 1900-1960. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1900-1960, accessed January 4, 2022.

Connecticut Airport Authority

2021 Waterbury-Oxford Airport. https://ctairports.org/airports/waterbury-oxford/, accessed June 22, 2021.

Curran, M.L., and D.F. Dincauze

1977 Paleo-Indians and Paleo-Lakes: New Data from the Connecticut Drainage. In *Amerinds and their Paleoenvironments in Northeastern North America.* Annals of the New York Academy of Sciences 288:333-348.

Davis, M.

1969 Climatic Changes in Southern Connecticut Recorded by Pollen Deposition at Rogers Lake. *Ecology* 50: 409-422.

Dincauze, D.F.

1974 An Introduction to Archaeology in the Greater Boston Area. *Archaeology of Eastern North America* 2(1):39-67.

1976 *The Neville Site: 8000 Years at Amoskeag.* Peabody Museum Monograph No. 4. Cambridge, Massachusetts.

Dowhan, J.J. and R.J. Craig

1976 *Rare and endangered species of Connecticut and Their Habitats*. State Geological Natural History Survey of Connecticut Department of Environmental Protection, Report of Investigations No. 6.

Fairchild Aerial Surveys

1934 *Connecticut Statewide Aerial Photograph Series*. Hartford, Connecticut: Connecticut State Archives.

Feder, K.

1984 *Pots, Plants, and People: The Late Woodland Period of Connecticut*. Bulletin of the Archaeological Society of Connecticut 47:99-112.

Fitting, J.E.

1968 *The Spring Creek Site*. In *Contributions to Michigan Archaeology*, pp. 1-78. Anthropological Papers No. 32. Museum of Anthropology, University of Michigan, Ann Arbor.

Funk, R.E.
1976 *Recent Contributions to Hudson Valley Prehistory.* New York State Museum Memoir 22. Albany.

George, D.
1997 A Long Row to Hoe: The Cultivation of Archaeobotany in Southern New England. *Archaeology of Eastern North America* 25:175 - 190.

George, D., and C. Tryon
1996 *Lithic and Raw Material Procurement and Use at the Late Woodland Period Cooper Site, Lyme, Connecticut.* Paper presented at the joint meeting of the Archaeological Society of Connecticut and the Massachusetts Archaeological Society, Storrs Connecticut

Gerrard, A.J.
1981 *Soils and Landforms, An Integration of Geomorphology and Pedology*. George Allen & Unwin: London.

Gramly, R. Michael, and Robert E. Funk
1990 What is Known and Not Known About the Human Occupation of the Northeastern United States Until 10,000 B. P. *Archaeology of Eastern North America* 18: 5-32.

Griffin, J.B.
1967 Eastern North America Archaeology: A Summary. *Science* 156(3772):175-191.

Jones, B.
1997 The Late Paleo-Indian Hidden Creek Site in Southeastern Connecticut. *Archaeology of Eastern North America* 25:45-80.

Lavin, L.
1980 Analysis of Ceramic Vessels from the Ben Hollister Site, Glastonbury, Connecticut. *Bulletin of the Archaeological Society of Connecticut* 43:3-46.

1984 Connecticut Prehistory: A Synthesis of Current Archaeological Investigations. *Archaeological Society of Connecticut Bulletin* 47:5-40.

1986 *Pottery Classification and Cultural Models in Southern New England Prehistory*. North American Archaeologist 7(1):1-12.

1987 The Windsor Ceramic Tradition in Southern New England. *North American Archaeologist* 8(1):23-40.

1988a Coastal Adaptations in Southern New England and Southern New York. *Archaeology of Eastern North America*, Vol.16:101-120.

1988b The Morgan Site, Rocky Hill, Connecticut: A Late Woodland Farming Community in the Connecticut River Valley. *Bulletin of the Archaeological Society of Connecticut* 51:7-20.

2013 *Connecticut's Indigenous Peoples: What Archaeology, History, and Oral Traditions Teach*

Us About Their Communities and Cultures. Yale University Press, New Haven, Connecticut.

Lavin, Lucianne, and Bert Salwen

1983 The Fastener Site: A New Look at the Archaic -Woodland Transition in the Lower Housatonic Valley. *Bulletin of the Archaeological Society of Connecticut* 46: 15-43.

Litchfield, Norman and Sabina Connolly Hoyt

1960 *History of the Town of Oxford, Connecticut*. N. Litchfield and S. Hoyt, Oxford, Connecticut.

Lizee, J.

1994a *Prehistoric Ceramic Sequences and Patterning in southern New England: The Windsor Tradition*. Unpublished Ph.D. dissertation, Department of Anthropology, University of Connecticut, Storrs.

1994b *Cross-Mending Northeastern Ceramic Typologies.* Paper presented at the 1994 Annual Meeting of the Northeastern Anthropological Association, Geneseo, New York.

McBride, K.

1978 Archaic Subsistence in the Lower Connecticut River Valley: Evidence from Woodchuck Knoll. *Man in the Northeast* 15 & 16:124-131.

1984 *Prehistory of the Lower Connecticut River Valley.* Ph.D. Dissertation, Department of Anthropology, University of Connecticut, Storrs, Connecticut.

Moeller, R.

1980 *6-LF-21: A Paleo-Indian Site in Western Connecticut.* American Indian Archaeological Institute, Occasional Papers No. 2.

Orcutt, S. and A. Beardsley

1880 *The History of the Old Town of Derby, Connecticut, 1642-1880: With Biographies and Genealogies*. Reprinted edition, 1998. 2 vol. Heritage Books, Bowie, Maryland.

Oxford, Town of

2018 Town of Oxford, CT Plan of Conservation and Development. Electronic document, https://www.oxford-ct.gov/sites/g/files/vyhlif3646/f/file/file/oxford_pocd_draft_july_20_2018.pdf, accessed September 9, 2021.

Pagoulatos, P.

1988 Terminal Archaic Settlement and Subsistence in the Connecticut River Valley. *Man in the Northeast* 35:71-93.

Pease, John C., and John M. Niles

1819 *A Gazetteer of the States of Connecticut and Rhode-Island*. Hartford, Connecticut: William S. Marsh.

Pfeiffer, J.

1984 The Late and Terminal Archaic Periods in Connecticut Prehistory. *Bulletin of the Bulletin of the Archaeological Society of Connecticut* 47:73-88.

1986 Dill Farm Locus I: Early and Middle Archaic Components in Southern Connecticut. *Bulletin of the Archaeological Society of Connecticut* 49:19-36.

1990 The Late and Terminal Archaic Periods in Connecticut Prehistory: A Model of Continuity. In *Experiments and Observations on the Archaic of the Middle Atlantic Region.* R. Moeller, ed.

Poirier, D.

1987 *Environmental Review Primer for Connecticut's Archaeological Resources.* Connecticut Historical Commission, State Historic Preservation Office, Hartford, Connecticut.

Pope, G.

1952 Excavation at the Charles Tyler Site. *Bulletin of the Archaeological Society of Connecticut* 26:3-29.

1953 The Pottery Types of Connecticut. *Bulletin of the Archaeological Society of New Haven* 27:3-10.

Ritchie, W.A.

1969a *The Archaeology of New York State*. Garden City: Natural History Press.

1969b *The Archaeology of Martha's Vineyard: A Framework for the Prehistory of Southern New England; A study in Coastal Ecology and Adaptation*. Garden City: Natural History Press

1971 *A Typology and Nomenclature for New York State Projectile Points*. New York State Museum Bulletin Number 384, State Education Department. University of the State of New York, Albany, New York.

Ritchie, W.A., and R.E. Funk

1973 *Aboriginal Settlement Patterns in the Northeast*. New York State Museum Memoir 20. The State Education Department, Albany.

Rouse, I.

1947 Ceramic Traditions and sequences in Connecticut. *Bulletin of the Archaeological Society of Connecticut* 21:10-25.

Salwen, B., and A. Ottesen

1972 Radiocarbon Dates for a Windsor Occupation at the Shantok Cove Site. *Man in the Northeast* 3:8-19.

Secretary of the State Denise W. Merrill, The Office of

2021a Population of Connecticut Towns 1756-1820. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1756-1820, accessed June 21, 2021.

2021b Population of Connecticut Towns 1830-1890. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1830---1890, accessed June 21, 2021.

2021c Population of Connecticut Towns 1900-1960. https://portal.ct.gov/SOTS/Register-Manual/Section-VII/Population-1900-1960, accessed June 21, 2021.

Smith, C.
1947 An Outline of the Archaeology of Coastal New York. *Bulletin of the Archaeological Society of Connecticut* 21:2-9.

Snow, D.
1980 *The Archaeology of New England.* Academic Press, New York.

State of Connecticut
2021 Larkin State Park Trail: Overview/History. https://portal.ct.gov/DEEP/State-Parks/Parks/Larkin-State-Park-Trail/Overview, accessed June 18, 2021.

Town of Oxford
2018 *Town of Oxford, CT Plan of Conservation and Development*. Electronic document, oxford_pocd_draft_july_20_2018.pdf, accessed June 22, 2021.

United States Department of Agriculture (USDA)
1951 *Agricultural Stabilization and Conservation Service Aerial Photography for Connecticut.* Washington, DC: Collections of the National Archives and Records Administration.

Witthoft, J.
1949 An Outline of Pennsylvania Indian History. *Pennsylvania History* 16(3):3-15.

1953 Broad Spearpoints and the Transitional Period Cultures. *Pennsylvania Archaeologist*, 23(1):4-31.

Wood, F. J.
1919 *The Turnpikes of New England*. Branch Line Press, Pepperell, Massachusetts.

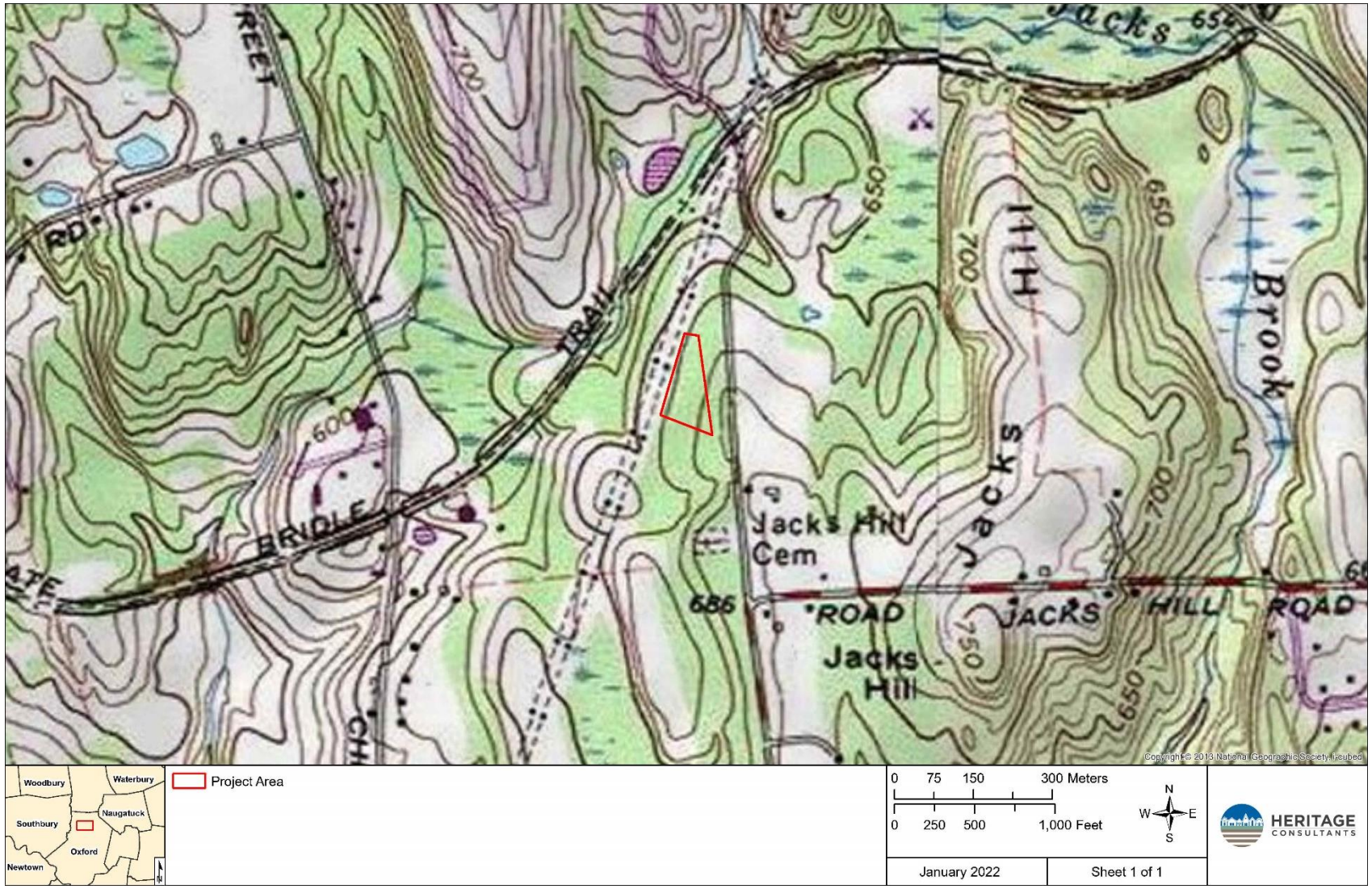


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the proposed battery storage facility in Oxford, Connecticut.

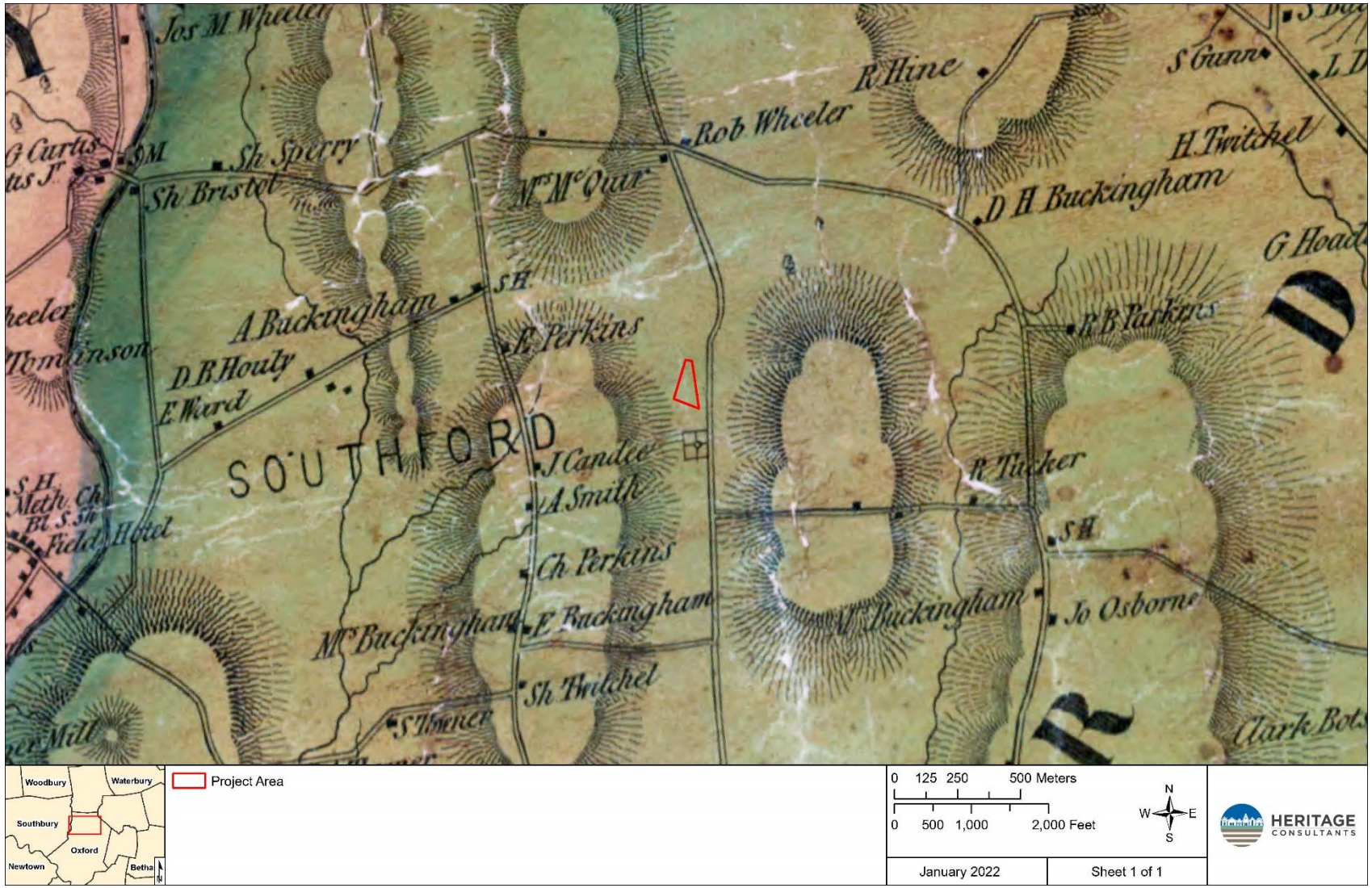


Figure 2. Excerpt from an 1852 historical map showing the location of the proposed battery storage facility in Oxford, Connecticut.

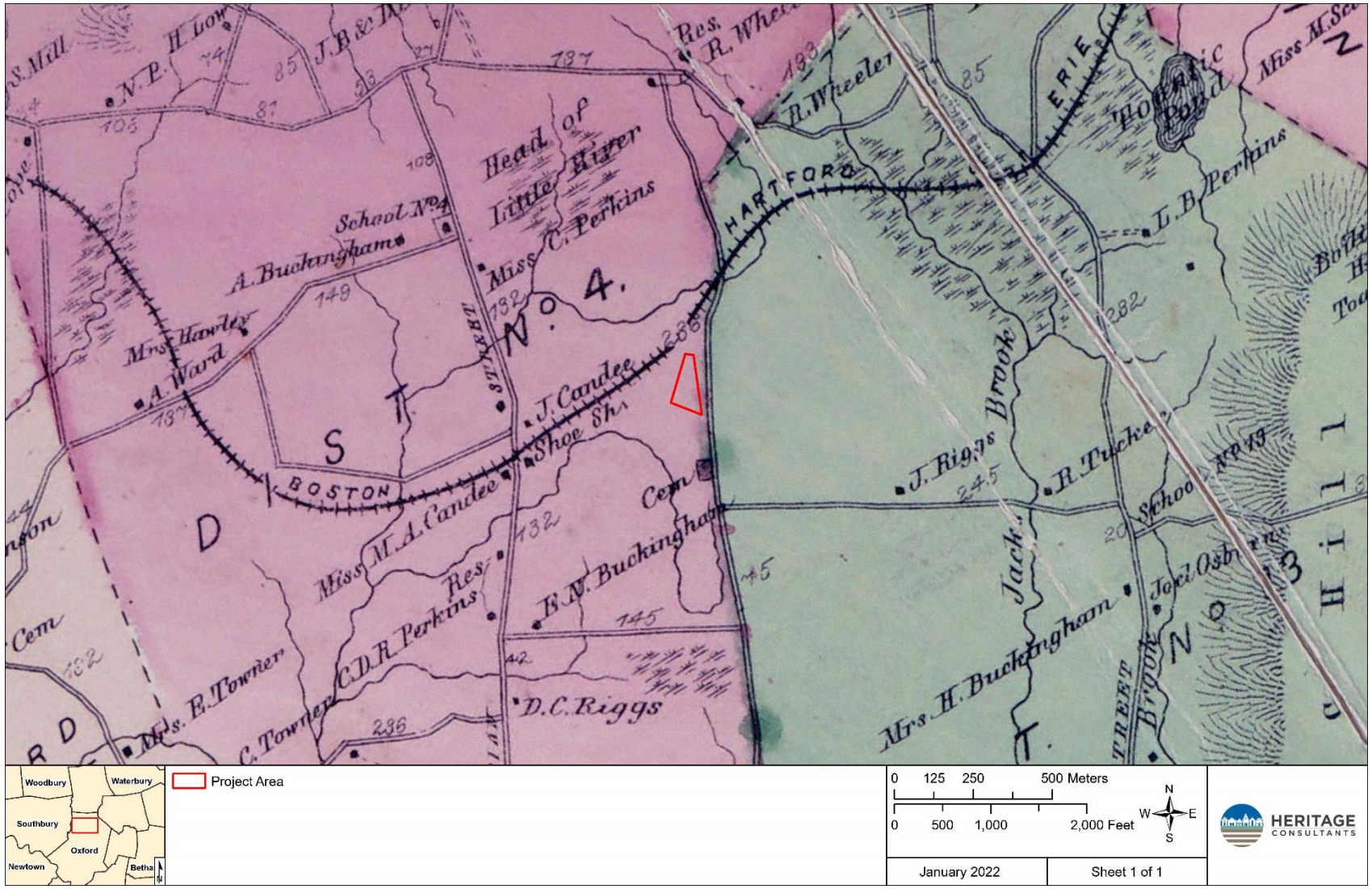


Figure 3. Excerpt from an 1868 historical map showing the location of the proposed battery storage facility location in Oxford, Connecticut.

Figure 4. Excerpt from a 1934 aerial photograph showing the location of the proposed battery storage facility location in Oxford, Connecticut.

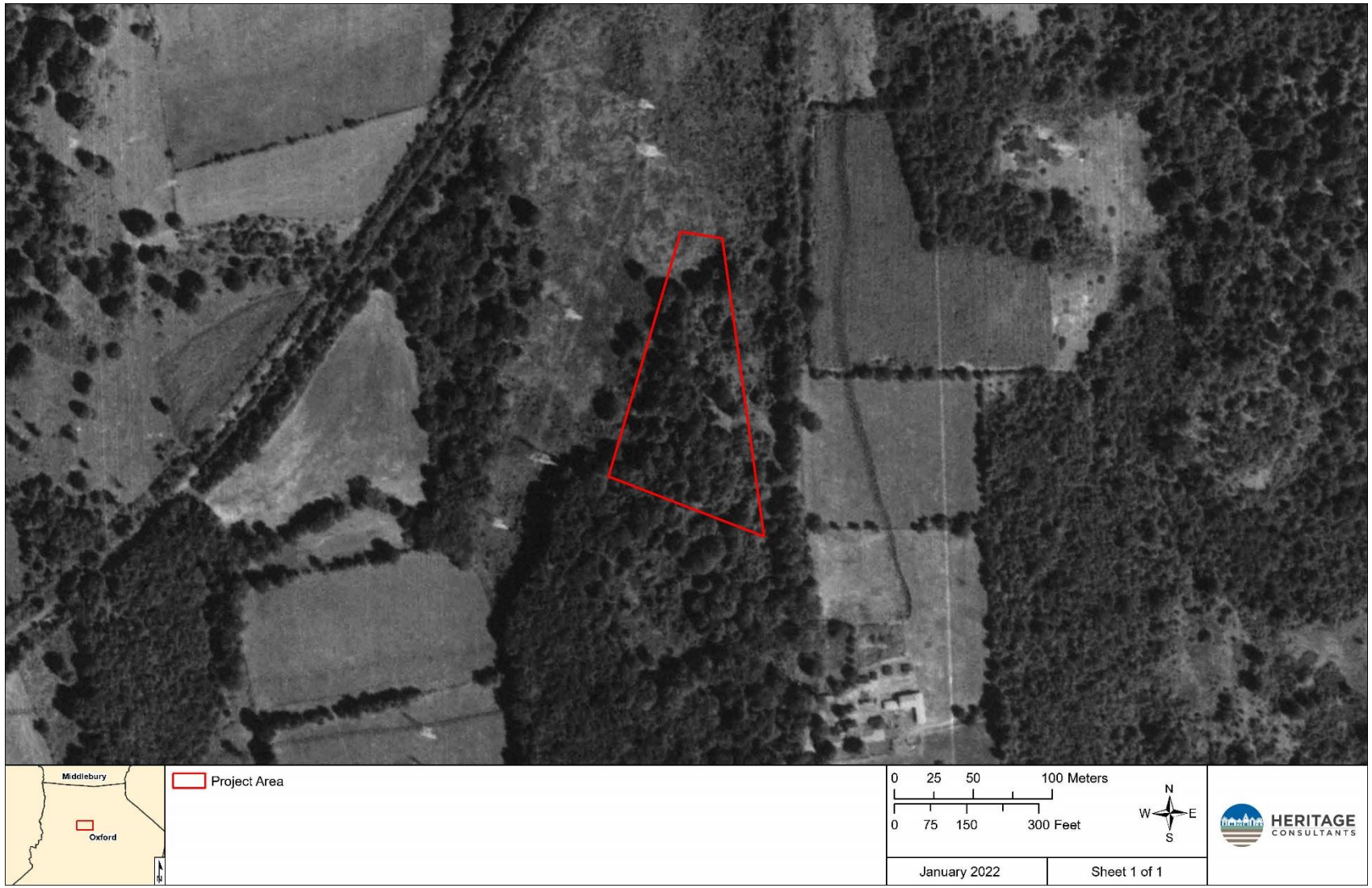


Figure 5. Excerpt from a 1951 aerial photograph showing the location of the proposed battery storage facility location in Oxford, Connecticut.

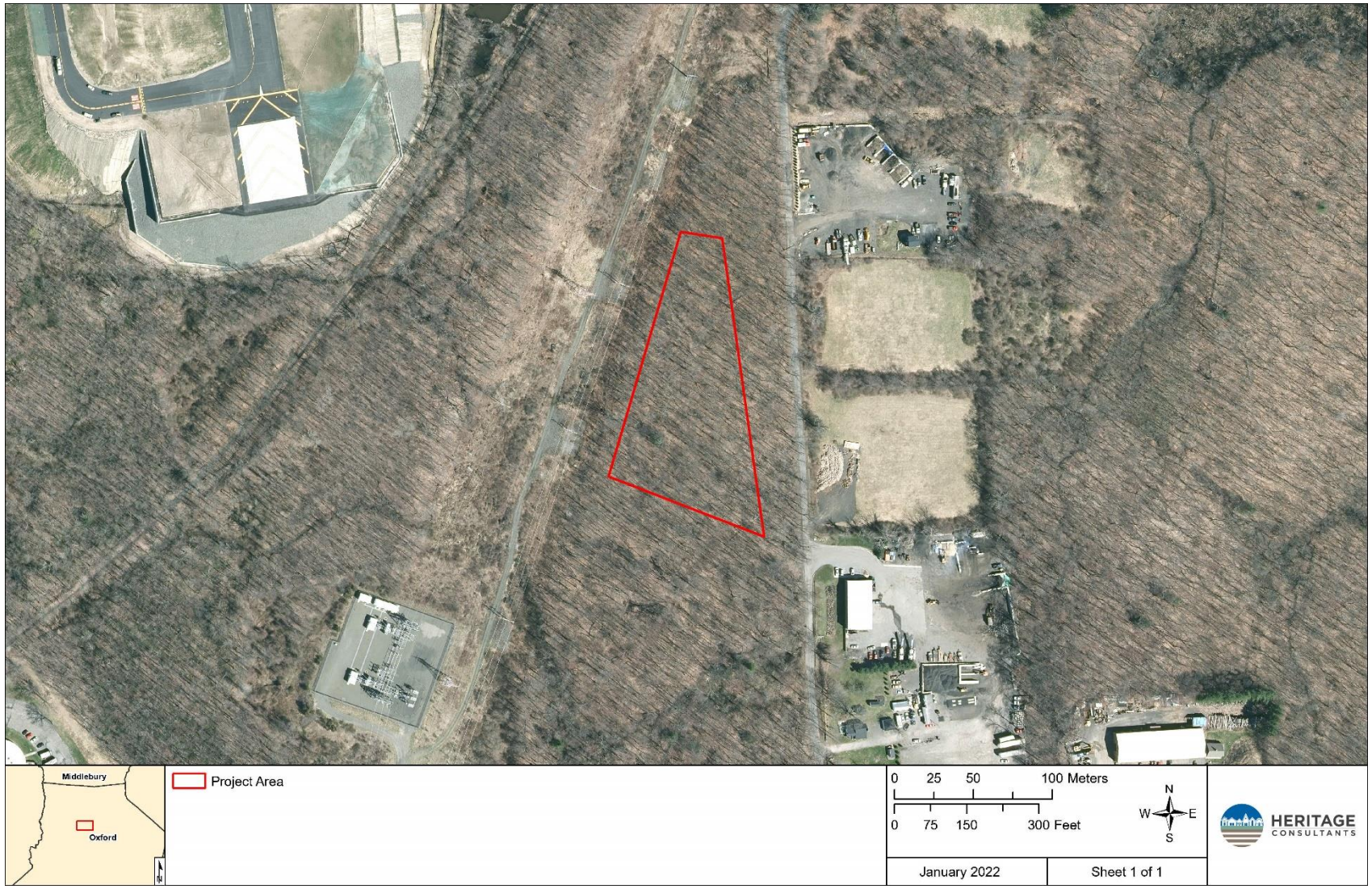


Figure 6. Excerpt from a 2019 aerial photograph showing the location of the proposed battery storage facility location in Oxford, Connecticut.

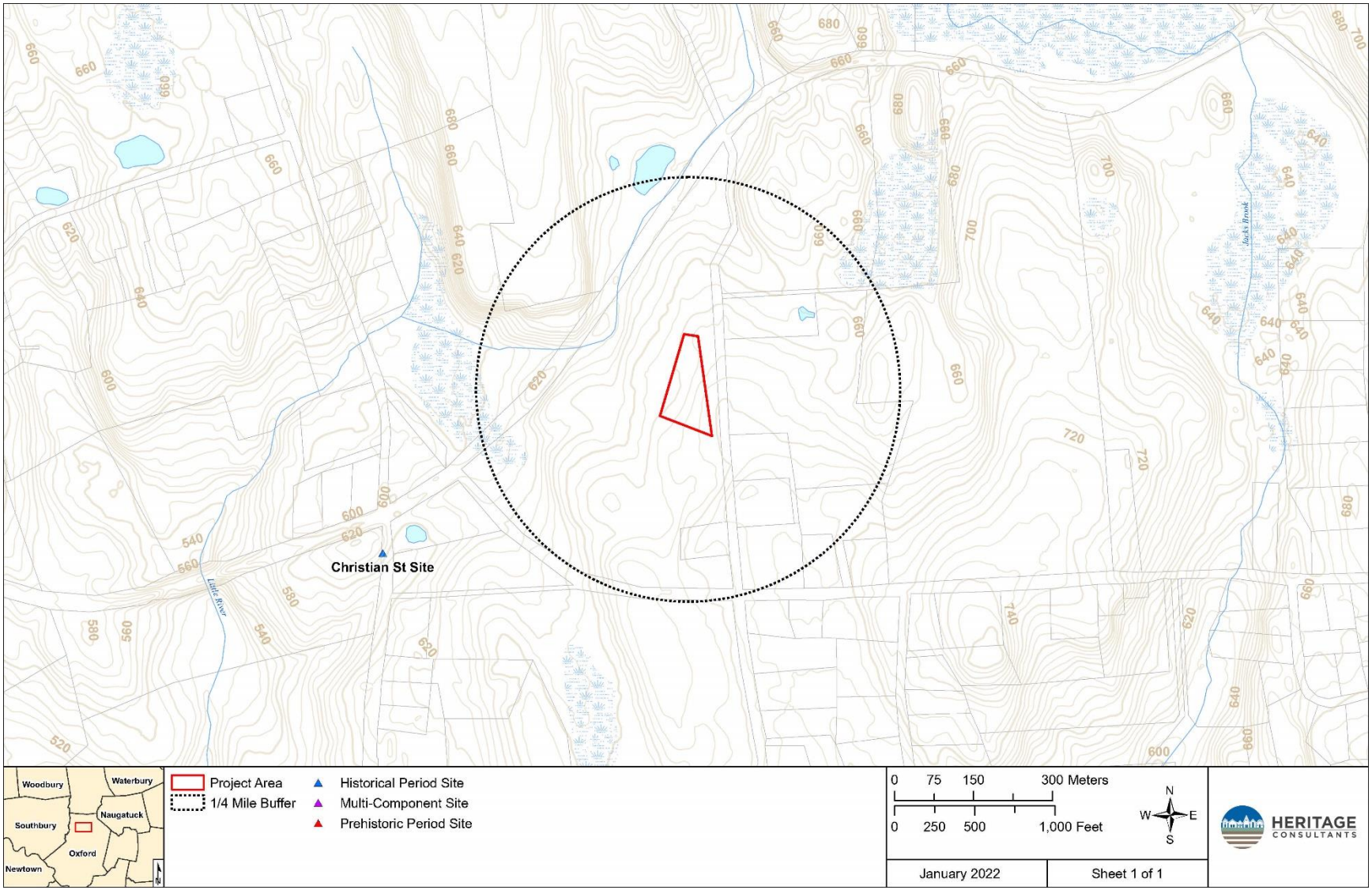


Figure 7. Digital map showing the location of previously identified archaeological sites in the vicinity of the proposed battery storage facility location in Oxford, Connecticut.

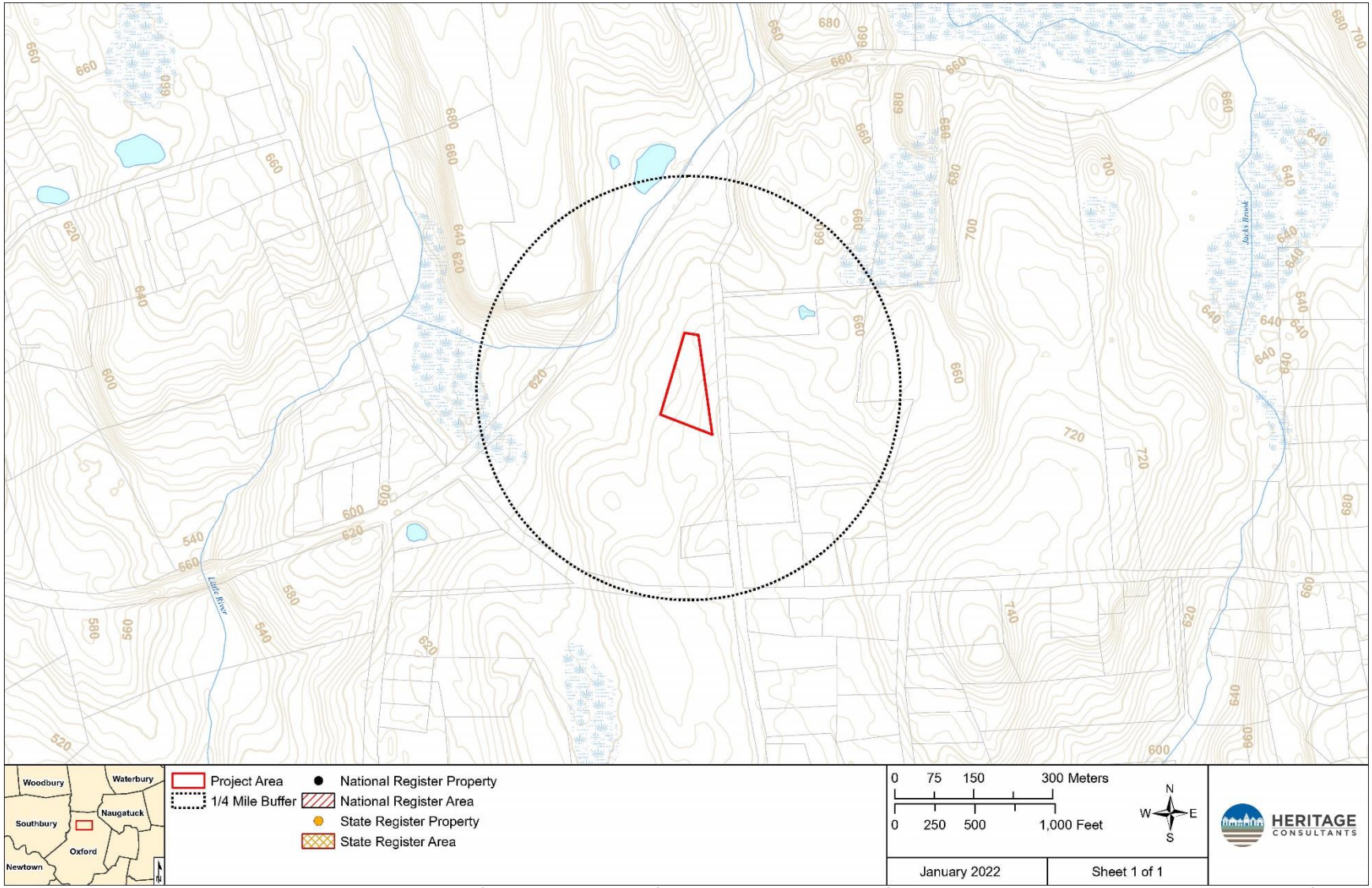


Figure 8. Digital map depicting the locations of previously identified National Register of Historic Places properties in the vicinity of the proposed battery storage facility location in Oxford, Connecticut.

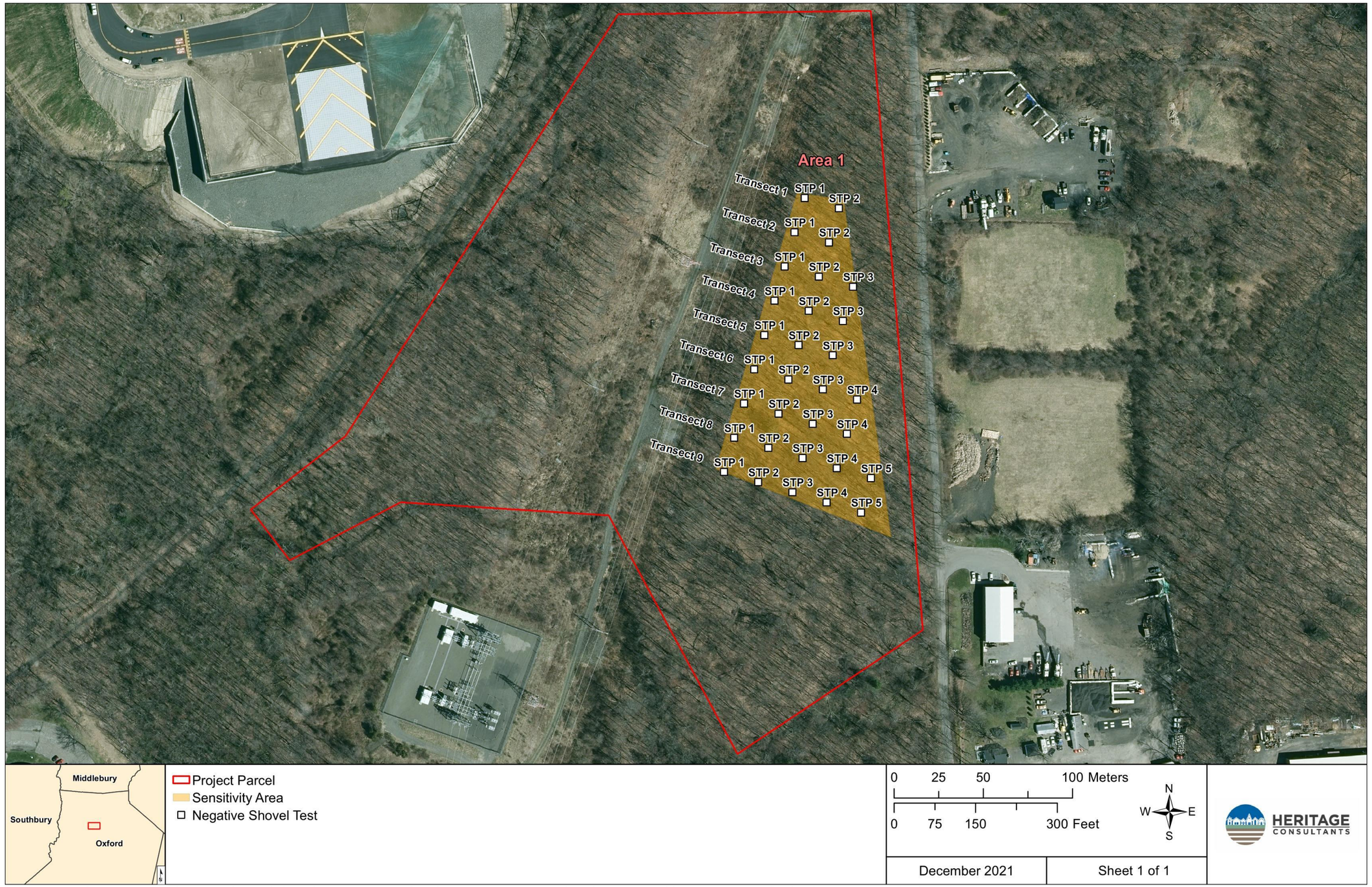


Figure 9. Plan view map showing planned shovel tests excavated and survey transects within the proposed battery storage facility location in Oxford, Connecticut.

Figure 10. Overview photo of the proposed battery storage project area in Oxford, Connecticut. The view is facing northwest from North Larkey Road.

Figure 11. Overview photo from the western boundary of the proposed battery storage project area in Oxford, Connecticut. The view is facing south.

Figure 12. Overview photo eastern boundary of the proposed battery storage project area in Oxford, Connecticut. The view is facing west.

Figure 13. Overview photo along Transect 2 of the proposed battery storage project area in Oxford, Connecticut. The view is facing southwest.

Figure 14. Overview photo along Transect 8 of the proposed battery storage project area in Oxford, Connecticut. The view is facing west.