STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: $\underset{\text { Web Site: portal.ct.gov/csc }}{\text { siting.council@ct.gov }}$

## VIA ELECTRONIC MAIL

August 24, 2022
Kenneth C. Baldwin, Esq.
Robinson \& Cole LLP
280 Trumbull Street
Hartford, CT 06103-3597
kbaldwin@rc.com
RE: PETITION NO. 1508 - Enfield Solar One, LLC and VCP, LLC d/b/a Verogy declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed construction, maintenance and operation of a 4.0 -megawatt AC solar photovoltaic electric generating facility located at 110 North Street, Enfield, Connecticut, and associated electrical interconnection.

Dear Attorney Baldwin:
The Connecticut Siting Council (Council) is in receipt of the Phase IB Cultural Resources Reconnaissance Survey and associated Connecticut State Historic Preservation Officer response dated August 18, 2022 regarding compliance with Condition No. 2 of the Council's Declaratory Ruling of July 22, 2022 for the above-referenced project.

The Council acknowledges that the condition has been satisfied. This acknowledgment applies only to the condition satisfied by the August 18, 2022 correspondence.

Thank you for your attention and cooperation.
Sincerely,


Melanie A. Bachman
Executive Director
MB/RDM/laf

## Robinson+Cole

KEnneth C. BALDWIN

280 Trumbull Street
Hartford, CT 06103-3597
Main (860) 275-8200
Fax (860) 275-8299
kbaldwin@rc.com
Direct (860) 275-8345

Also admitted in Massachusetts and New York

Melanie A. Bachman, Esq. Executive Director/Staff Attorney
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051
Re: Petition No. 1508 - Enfield Solar One, LLC and VCP, LLC d/b/a Verogy - Petition for a Declaratory Ruling that a Certificate of Environmental Compatibility and Public Need is not Required for the Construction, Operation and Maintenance of a 4.0 MWAC Solar Photovoltaic Project at 110 North Street, Enfield, Connecticut

Dear Ms. Bachman:
In accordance with Condition No. 2 of the Siting Council's July 21, 2022 approval of the above-referenced Petition for Declaratory Ruling, enclosed are fifteen (15) copies of the Phase 1B Cultural Resources Reconnaissance Survey for the Enfield Solar One, LLP facility. Also enclosed are fifteen (15) copies of an August 10, 2022 letter from the Connecticut State Historic Preservation Officer confirming, after its review of the Phase 1B Survey, that "no historic properties will be affected" by the proposed development activities associated with the Enfield Solar One facility.

Please feel free to contact me if you have any questions. Thank you in advance for your assistance and cooperation.

KCB/kmd
Enclosures
Copy to:
Ellen Zoppo-Sassu, Enfield Town Manager

# Phase ib Cultural Resources Reconnaissance Survey of the proposed Verogy Solar Facility Project, 110 North Street In Enfield, Connecticut 

Prepared For:

Prepared By:


#### Abstract

This report presents the results of a Phase IB cultural resources reconnaissance survey for a proposed solar facility at 110 North Street in Enfield, Connecticut. Currently, the project parcel currently contains the Pleasant View Golf Park driving range. The project parcel encompasses approximately 19.7 acres of land. The proposed project will include the construction of the solar facility and associated infrastructure, including 11,050 photovoltaic panels and associated electrical equipment. A proposed access road will originate from North Street and extend to the south along the western boundary of the project area; a storm water basin will also be constructed in the northeastern corner of the project area.

The Phase IB survey of the project area was completed in April of 2022. A total of 170 of 170 (100 percent) planned survey shovel test pits were excavated across the impact area, which is characterized by level topography. During the Phase IB survey, modern items (pieces of plastic, golf balls, twine, and bottle glass) was identified during shovel testing but not collected in the field. A single whiteware ceramic sherd was identified and collected from plow zone soils. The ceramic sherd was not found in association with any above-ground or buried architectural features; it was characterized as an unassociated isolated find and was assessed not eligible for listing to the National Register of Historic Places applying the criteria for evaluation ( 36 CFR 60.4 [a-d]). Thus, it was determined that no impacts to cultural resources are expected by the proposed construction of the solar facility, and no additional archaeological examination is recommended.


## Table of Contents

CHAPTER I: INTRODUCTION ..... 1
Project Area Description ..... 1
Background Research ..... 1
Summary of Project Results ..... 2
Project Personnel ..... 2
Chapter II: Natural Setting ..... 3
Introduction ..... 3
Ecoregions of Connecticut ..... 3
North-Central Lowlands Ecoregion ..... 3
Hydrology in the Vicinity of the Facility ..... 3
Soils Comprising the Facility Area ..... 4
Ninigret Soils (21A) ..... 4
Tisbury Soils (21A) ..... 4
Agawam Soils (29A) ..... 5
Windsor Soils (36B) ..... 5
Summary ..... 5
Chapter III: Prehistoric Setting .....  6
Introduction ..... 6
Paleo-Indian Period (12,000 to 10,000 Before Present [B.P.]) ..... 6
Archaic Period (10,000 to 2,700 B.P.) ..... 7
Early Archaic Period (10,000 to 8,000 B.P.) ..... 7
Middle Archaic Period (8,000 to 6,000 B.P.) ..... 8
Late Archaic Period (6,000 to 3,700 B.P.) ..... 8
Terminal Archaic Period (3,700 to 2,700 B.P.) ..... 9
Woodland Period ( 2,700 to 350 B.P.) ..... 10
Early Woodland Period (ca., 2,700 to 2,000 B.P.) ..... 10
Middle Woodland Period (2,000 то 1,200 B.P.) ..... 10
Late Woodland Period (ca., 1,200 to 350 B.P.) ..... 11
Summary of Connecticut Prehistory ..... 11
Chapter IV: Historical Overview ..... 12
Introduction ..... 12
Pre-Contact and Contact Eras ..... 12
Colonial Era through Present Day ..... 13
History of the Project Area ..... 14
Conclusions ..... 14
Chapter V: Previous Investigations ..... 16
Introduction ..... 16
Previously Recorded Archaeological Sites and National/State Register of Historic Places Properties/Districts in the Vicinity of the Facility ..... 16
Site 49-5 ..... 16
Site 49-7 ..... 16
Site 49-10 ..... 17
Enfield Shakers Historic District ..... 17
Hazardville Historic District ..... 18
Summary and Interpretations ..... 19
Chapter VI: Methods ..... 20
Introduction. ..... 20
Research Design ..... 20
Field Methods ..... 20
Curation ..... 20
Chapter VII: Results \& Management Recommendations ..... 21
Introduction ..... 21
Results of the Phase IB Survey \& Management Recommendations ..... 21
Biblography ..... 23

## List Of Figures

Figure 1. Excerpt from a 1996 USGS 7.5' series topographic quadrangle image showing the location of the proposed development parcel in Enfield, Connecticut (USGS 1986).

Figure 2. Map provided by All-Points Technology Corporation of the proposed development parcel in Enfield, Connecticut

Figure 3. Excerpt from an 1855 map showing the proposed development parcel in Enfield, Connecticut (Woodford 1855).

Figure 4. Excerpt from an 1869 map showing the proposed development parcel in Enfield, Connecticut (Beers 1869).

Figure 5. Excerpt from a 1934 aerial photograph showing the proposed development parcel in Enfield, Connecticut (Fairchild 1934).

Figure 6. Excerpt from a 1986 Connecticut USDA aerial photograph showing the proposed development parcel in Enfield, Connecticut (USDA 1986).

Figure 7. Excerpt from a 2019 aerial photograph showing the proposed development parcel in Enfield, Connecticut (ECO 2019).

Figure 8. Digital map depicting the locations of previously identified archaeological sites in the vicinity of the proposed development parcel in Enfield, Connecticut.

Figure 9. Digital map depicting the locations of previously identified National Register of Historic Places properties in the vicinity of the proposed development parcel in Enfield, Connecticut.

Figure 10. Excerpt from a 2019 aerial image showing the development parcel, shovel test locations, and proposed access road.

## List of Рноtos

Photo 1. Representative view of the northern boundary of the proposed Facility area facing west.
Photo 2. Representative view of the southeastern corner of the proposed Facility area facing north.
Photo 3. Representative view of the southwestern corner of the proposed project area facing north. A portion of St. Bernard's cemetery is visible to the west.

Photo 4. Representative view of the south central portion of the proposed Facility area facing north across the driving range.

Photo 5. Representative view of the southeastern corner of the proposed Facility area facing south.

## Chapter I <br> Introduction

This report presents the results of a Phase IB cultural resources reconnaissance survey of a proposed solar facility (the Facility) in Enfield, Connecticut (Figures 1 and 2). All-Points Technology Corporation (All-Points), working on behalf of Verogy/Enfield Solar One, LLC (Verogy/Enfield), requested that Heritage Consultants, LLC (Heritage) complete the Phase IB survey as part of the planning process for the Facility, which will impact 19.7 acres of land at 110 North Street in Enfield, Connecticut. The proposed Facility is bounded to the north by North Street and a sand/gravel operation, to the east by woodlands and wetlands, to the south by agricultural fields and a portion of St. Bernard's cemetery, and to the west by agricultural fields. A residential subdivision is located to the south of the project parcel, but not immediately adjacent to it. Heritage completed this investigation in April of 2022. All work associated with this project was performed in accordance with the Environmental Review Primer for Connecticut's Archaeological Resources (Poirier 1987), which is promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

## Project Area Description

The proposed project will include the construction of the Facility and associated infrastructure, including photovoltaic panels and associated electrical equipment. A total of approximately 11,050 solar panels will be installed within the Facility area. The Facility will interconnect with the local electrical grid along North Street, which is situated to the northwest (Figure 2). The project area is currently characterized by level topography. The project area currently encompasses the Pleasant View Golf Park driving range, which was founded in 2004. At the time of the survey, the project area consisted largely of manicured grass, and elevations throughout the Facility ranged from between 56 to 58 m ( 183.8 to 190.3 ft ) NGVD.

## Background Research

The Phase IB cultural resources reconnaissance survey consisted of historical research and records reviews that focused on the area of Enfield; specifically, the area encompassing the proposed solar facility. Background research included analysis of readily available historical maps and aerial imagery; an examination of the pertinent 1996 USGS 7.5' series topographic quadrangles; and a review of all known archaeological sites and National/State Register of Historic Places property maintained by the Connecticut State Historic Preservation Office (CT-SHPO), as well as digital records archived by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within or immediately adjacent to the project parcel. This information was used to develop the archaeological context for assessing cultural resources that may be identified during survey. The following chapters provide an overview of the region's natural and prehistoric settings, historical backdrop, and previous cultural resources investigations completed within the vicinity of the proposed study area. They are included to provide contextual information relative to the location of the proposed study area, its natural characteristics, and its prehistoric and historical use and occupation. An overview of the previous cultural resources investigations in the area and a discussion of their results is also provided.

## Field Methods Overview

Field methods employed during the Phase IB survey consisted of pedestrian survey, mapping, photodocumentation, and shovel testing of the across the project area. The subsurface examination was completed through the excavation of 170 of 170 ( 100 percent) planned survey shovel test pits spaced at 20 meter ( 66 foot) intervals along 13 transects place 20 meters ( 66 feet) apart. All shovel tests measured
$50 \times 50 \mathrm{~cm}(19.4 \times 19.4 \mathrm{in})$ in size and were excavated until glacially derived C-Horizon soils or immovable objects (boulders, large tree roots) were encountered. Each shovel test was excavated in 10 cm ( 3.9 in ) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through $0.635 \mathrm{~cm}(0.25 \mathrm{in})$ hardware cloth and examined visually for cultural material. Soil characteristics were recorded using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled after it was recorded.

## Summary of Project Results

The review of historical maps and aerial images of the project region and files maintained by the CTSHPO resulted in the identification of three archaeological sites, two National Register of Historic Places districts, and 16 State Register of Historic Properties (49-22, 49-47, 49-48, 49-53, 49-54, 49-55, 49-57, 49-$58,49-59,49-94,49-129,49-131,49-132,49-133,49-134$, and 49-135) within $1.6 \mathrm{~km}(1 \mathrm{mi})$ of the Facility. They are discussed in Chapter V of this report.

During the survey, 170 of 170 ( 100 percent) planned survey shovel test pits were excavated across the impact area. They yielded modern items (pieces of plastic, golf balls, twine, and bottle glass) that were not collected in the field. Only a single historical period artifact, a whiteware sherd, was identified and collected from plow zone soils. The ceramic sherd was not found in association with any above-ground or buried architectural features; it was characterized as an unassociated isolated find and was assessed not eligible for listing to the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). Thus, it was determined that no impacts to cultural resources are expected by the proposed construction of the solar facility, and no additional archaeological examination is recommended.

## Project Personnel

Heritage Personnel who contributed to the project include David R. George, M.A., RPA, (Principal Investigator); Antonio Medina, B.A. (Operations Manager), Renée Petruzelli M.A., RPA, (Project Archaeologist); Matt Denno, B.A., (Field Director); Jeffrey Brown, M.A., (Geographic Information Specialist), and Barbara Sternal, M.A. (Historian).

# Chapter II <br> Natural Setting 

## Introduction

This chapter provides a brief overview of the natural setting of the region containing the proposed Facility in Enfield, Connecticut. Previous archaeological research has documented that a few 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 and soils present. The remainder of this section provides a brief overview of the ecology, hydrological resources, and soils present within the impact areas 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 very 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 is germane to the current investigation: North-Central Lowlands ecoregion. A brief summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the project area.

## North-Central Lowlands Ecoregion

The North-Central Lowlands ecoregion consists of a broad valley located between 40.2 and 80.5 km ( 25 and 50 mi ) to the north of Long Island Sound (Dowhan and Craig 1976). It is characterized by extensive floodplains, backwater swamps, and lowland areas situated near large rivers and tributaries. Physiography in this region is composed of a series of north-trending ridge systems, the easternmost of which is referred to as the Bolton Range (Bell 1985:45). These ridge systems comprise portions of the terraces that overlook the larger rivers such as the Connecticut and Farmington Rivers. The bedrock of the region is composed of Triassic sandstone, interspersed with very durable basalt or "traprock" (Bell 1985). Soils found in the upland portion of this ecoregion are developed on red, sandy to clayey glacial till, while those soils situated nearest to the rivers are situated on widespread deposits of stratified sand, gravel, silt, and alluvium resulting from the impoundment of glacial Lake Hitchcock.

## Hydrology in the Vicinity of the Facility

The proposed Facility is situated within a region that contains several sources of freshwater, including the Scantic River, Freshwater Brook, and Terry 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 Facility Area

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 help preserve charred plant remains.

A review of the soils within the proposed impact areas is presented below. They are characterized by four major soil types: Ninigret, Tisbury, Agawam, and Windsor. A review of these soils shows that they are moderately well drained to excessively well drained sandy loams 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.

## Ninigret Soils (21A)

The Ninigret series consists of very deep, moderately well drained soils formed in loamy over sandy and gravelly glacial outwash. They are nearly level to strongly sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. A typical profile associated with Ninigret soils is as follows: Ap --0 to 8 inches; very dark grayish brown (10YR 3/2) fine sandy loam; pale brown (10YR $6 / 3$ ) dry; weak medium granular structure; very friable; many fine roots; strongly acid; abrupt smooth boundary; Bw1 --8 to 16 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse granular structure; very friable; few fine roots; strongly acid; clear wavy boundary; Bw2 --16 to 26 inches; yellowish brown (10YR 5/4) fine sandy loam; very weak coarse granular structure; very friable; very few fine roots; common medium distinct light brownish gray (10YR 6/2) and brownish yellow (10YR 6/6) redoximorphic features; strongly acid; clear wavy boundary; and 2C --26 to 65 inches; pale brown (10YR $6 / 3$ ) loamy sand and few lenses of loamy fine sand; single grain; loose; many medium distinct light olive gray ( $5 \mathrm{Y} 6 / 2$ ) and many prominent yellowish brown (10YR 5/8) redoximorphic features; strongly acid (https://soilseries.sc.egov.usda.gov/OSD_Docs/N/NINIGRET.htmI).

## Tisbury Soils (21A)

The Tisbury series consists of very deep, moderately well drained loamy soils formed in silty eolian deposits overlying outwash. They are nearly level and gently sloping soils on outwash plains and terraces, typically in slight depressions and broad drainageways. A typical profile associated with Tisbury soils is as follows: Ap--0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; weak coarse granular structure; friable; many very fine and fine roots; few scattered pebbles; strongly acid; abrupt smooth boundary; Bw1--8 to 18 inches; yellowish brown (10YR 5/6) silt loam; weak medium and coarse subangular blocky structure; very friable; common very fine and fine roots; few scattered pebbles; strongly acid; clear wavy boundary; Bw2--18 to 26 inches; brownish yellow (10YR 6/6) silt loam; massive; very friable; few fine roots; few scattered pebbles; common medium prominent grayish brown ( 2.5 Y $5 / 2$ ) iron depletions and common medium distinct strong brown (7.5YR $5 / 6$ ) masses of iron
accumulation; strongly acid; clear wavy boundary; and 2C--26 to 60 inches; grayish brown (10YR 5/2) extremely gravelly sand; single grain; loose; 60 percent gravel; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and common medium faint light brownish gray (10YR 6/2) iron depletions; strongly acid (https://soilseries.sc.egov.usda.gov/OSD_Docs/T/TISBURY.html).

## Agawam Soils (29A)

The Agawam series consists of very deep, well drained soils formed in sandy, water deposited materials. They are level to steep soils on outwash plains and high stream terraces. A typical profile associated with Agawam soils is as follows: Ap--0 to 11 inches; dark grayish brown (10YR 4/2) fine sandy loam; light brownish gray (10YR 6/2) dry; weak medium and coarse subangular blocky structure; very friable; common fine and medium roots; strongly acid; abrupt smooth boundary; Bw1--11 to 16 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium and coarse subangular blocky structure; very friable; common fine and medium roots; strongly acid; abrupt smooth boundary; Bw2--16 to 26 inches; light olive brown (2.5Y5/4) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; strongly acid; clear smooth boundary; 2C1--26 to 45 inches; olive(5Y 5/3) loamy fine sand; massive; very friable; few fine roots; strongly acid; clear smooth boundary; 2C2-45 to 55 inches; olive brown (2.5Y 4/4) loamy fine sand; massive; very friable; strongly acid; abrupt smooth boundary; and 2C3--55 to 65 inches; olive (5Y5/3) loamy sand; single grain; loose; strongly acid (https://soilseries.sc.egov.usda.gov/OSD_Docs/A/AGAWAM.html).

## Windsor Soils (36B)

The Windsor series consists of very deep, excessively drained soils formed in sandy outwash or eolian deposits. They are nearly level through very steep soils on glaciofluvial landforms. A typical profile associated with Windsor soils is as follows: Oe--0 to 3 cm ; black (10YR 2/1) moderately decomposed forest plant material; many very fine and fine roots; very strongly acid; abrupt smooth boundary; A--3 to 8 cm ; very dark grayish brown (10YR 3/2) loamy sand; weak medium granular structure; very friable; many very fine and fine roots; strongly acid; abrupt wavy boundary; Bw1--8 to 23 cm ; strong brown (7.5YR 5/6) loamy sand; very weak fine granular structure; very friable; many fine and medium roots; strongly acid; gradual wavy boundary; Bw2--23 to 53 cm ; yellowish brown (10YR 5/6) loamy sand; very weak fine granular structure; very friable; common fine and medium roots; strongly acid; gradual wavy boundary; Bw3--53 to 64 cm ; light yellowish brown (10YR 6/4) sand; single grain; loose; few coarse roots; strongly acid; clear wavy boundary; and C--64 to 165 cm ; pale brown (10YR 6/3) and light brownish gray (10YR 6/2) sand; single grain; loose; few coarse roots; strongly acid (https://soilseries.sc.egov.usda. gov/OSD_Docs/W/WINDSOR.html).

## Summary

The natural setting of the area containing the proposed Facility is common throughout the NorthCentral Lowlands ecoregion. Streams and rivers of this area empty into the Connecticut River, which in turn drains into the Long Island Sound. Further, the landscape is dominated by low slopes and sandy loamy soil types with some wetland soils intermixed. In general, the region was well suited to Native American occupation throughout the prehistoric era. This portion of Enfield was also used throughout the historical era, as evidenced by the presence of numerous historical residences, barns, outbuildings, and agricultural fields throughout the region; thus, archaeological deposits dating from the prehistoric and historical era may be expected near or within the proposed Facility area.

## Chapter III Prehistoric Setting

## Introduction

Prior to the late 1970s and early 1980s, very 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 they were in such areas as 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, was 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 the project parcel.

## Paleo-Indian Period (12,000 to $\mathbf{1 0 , 0 0 0}$ 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 three sites, the Templeton Site (6-LF-21) in Washington, Connecticut, the Hidden Creek Site (72-163) in Ledyard, Connecticut, and the Brian D. Jones Site (4-10B) in Avon, Connecticut have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980; Leslie et al., 2020).

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 Hidden Creek Site (72-163) is situated on the southeastern margin of the Great Cedar Swamp on the Mashantucket Pequot Reservation in Ledyard, Connecticut (Jones 1997). 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.

The Brian D. Jones Site (4-10B) was identified in a Pleistocene levee on the Farmington River in Avon, Connecticut; it was buried under $1.5 \mathrm{~m}(3.3 \mathrm{ft})$ of alluvium and was situated within $5 \mathrm{~km}(3.1 \mathrm{mi})$ of the current Nod Road project area (Leslie et al., 2020). It is possible that the proposed project area also was utilized during the Paleo-Indian Period. The Brian D. Jones Site was identified by Archaeological and Historical Services, Inc., in 2019 during a survey for the Connecticut Department of Transportation preceding a proposed bridge construction project. It is now the oldest known archaeological site in Connecticut at $\pm 12,500$ years old. The site also provides a rare example of a Paleo-Indian site on a river rather than the more common upland areas or on the edges of wetlands. Ground-penetrating radar survey revealed overbank flooding and sedimentation that resulted in the creating of a stable ancient river levee with gentle, low-energy floods. Archaeological deposits on the levee were therefore protected. Soil vibracores were extracted to accurately plot the sedimentology of the site. These cores are still undergoing analysis (Leslie et al., 2020:1).

Excavations at the Brian D. Jones Site revealed 44 soil anomalies, 27 of which were characterized as cultural features used as hearths and post holes, among other uses. One hearth has been dated thus far ( $10,520 \pm 3014 \mathrm{C}$ yr BP; charred Pinus; 2-sigma 12,568 to 12,410 CAL BP) (Leslie et al., 2020: 4). Further radiocarbon testing will be completed in the future. Artifact concentrations surrounded these features and were separated in two stratigraphic layers represented two temporally discrete Paleoindian occupations. The recovered lithic artifacts are fashioned from Normanskill chert, Hardyston jasper, Jefferson/Mount Jasper rhyolite, chalcedony, siltstone, and quartz. They include examples of a fluted point base, preforms, channel flakes, pièces esquillées, end scrapers, side scrapers, grinding stones, bifaces, utilized flakes, gravers, and drilled stone pendant fragment. Lithic tools numbered over 100, while toolmaking debris was in the thousands. The channel flakes represent the production of spear points used in hunting. Scrapers, perforators, and grinding stones indicate animal butchering, plant food grinding, the production of wood and bone tools, and the processing of animal skins for clothing and tents. Other collected cultural materials included charred botanicals and calcined bone. Botanicals recovered in hearth features included burned remains of cattail, pin cherry, strawberry, acorn, sumac, water lily, and dogwood. In addition, pieces of ochre were recovered during the excavations; these, in combination with the drilled pendant fragment, are the earliest evidence of personal adornment and artistic expression identified in Connecticut (Sportman and Leslie 2020). Approximately 15,000 artifacts were collected in total. Analysis is ongoing by Archaeological and Historical Services, Inc., and planned to be completed by 2022. The Brian D. Jones Site was fully excavated, and bridge construction proceeded by the Connecticut Department of Transportation.

## 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, very 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 very small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions of 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 on the basis of a series of illdefined 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, are 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 $7,740 \pm 280$ and $7,015 \pm 160$ 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 $\pm 180$ 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 EaredNotched, Brewerton Eared and Brewerton Side-Notched varieties (McBride 1984; Ritchie 1969a; Thompson 1969). 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 $500 \mathrm{~m}^{2}\left(5,383 \mathrm{ft}^{2}\right)$. 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).

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

The Terminal Archaic Period, which lasted from ca., 3,700 to $2,700 \mathrm{BP}$, 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 of Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

In addition, it was during the late Terminal Archaic Period 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 of 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.

## Early Woodland Period (ca., 2,700 to 2,000 B.P.)

The Early Woodland Period of the northeastern United States dates from ca., 2,700 to 2,000 B.P., and it has been 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 increased numbers of ceramic types and forms .(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, indicative of the Middle Woodland Period, include 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

In sum, 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. For much of the prehistoric era, local Native American groups 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 area, 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 project area is located in the eastern section of the town of Enfield, which is situated just to the south of the Massachusetts border in Hartford County, Connecticut. Settled in approximately 1680, Enfield was originally part of the Massachusetts Bay Colony due to a surveyor error. In 1734, the eastern portion of Enfield became the town of Somers and in 1749, the town of Enfield became incorporated as part of the Connecticut Colony. While the town experienced significant growth in the nineteenth and twentieth centuries, Enfield remains a combination of urban areas, housing developments, and farmland. This chapter presents an overview of the history of the town of Enfield, as well as data specific to the project area.

## Pre-Contact and Contact Eras

The Native Americans who inhabited the Connecticut River Valley in central and northern Connecticut were part of the Eastern Algonkian civilization, which included various groups, including the Podunk, Wangunk, Nawaas, and Sicaog tribes. By 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, 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 southern New England in the seventeenth century and earlier (Lavin 2013).

When it comes to the transfer of land from Native Americans to the Europeans, colonial records shed some light. In 1678, a trio of Native Americans named Wequagun (formerly named Wrutherna), Wawapaw (formerly named Naiapompolan), and Waquompo confirmed a 1675 sale of the part of Enfield lying north of Freshwater River, which had not been recorded earlier because of King Philip's War. In 1680, a Native American man named Tawtaps (also known as Nottatuck) sold the land south of the Freshwater River to the falls on the Connecticut River (in what is now East Windsor), reserving hunting and fishing rights on the common lands; this deed was witnessed by Momando, Cogoranasset, and Nessataquakis, as well as several Englishmen (Wright 1905). Because these documents do not refer to specific tribal affiliations, it is unclear which specific groups frequently utilized the land that is now Enfield.

## Colonial Era through Present Day

The community of Enfield was thought for many years to be within the Massachusetts Bay Colony based on the results of a 1642 survey of the boundary line with the Connecticut Colony. In 1679, Springfield established a committee to form a new town in the vicinity of Freshwater River. The 1680 land purchase was in support of this plan and the first colonists arrived there in 1681, settling to the south of the river. In 1703, Connecticut began asserting ownership of Enfield and other areas along the Massachusetts border due to errors found in the 1642 survey. In addition, because the southern boundary of the town was originally thought to be the colony line from 1642, a two-mile strip of land was simultaneously claimed both by Enfield and the town of Windsor, Connecticut. In 1713, the matter was finally settled, and Windsor relinquished its claim in exchange for land elsewhere. Officials in Enfield and other towns along the border soon concluded that they would prefer to be part of Connecticut, though it was not until 1747 that they petitioned the legislature of both colonies to be transferred. The government of Connecticut agreed but Massachusetts objected. In 1749, the British monarch decided in Connecticut's favor, although Enfield had already begun sending representatives to the Connecticut legislature (Winch 1886). As of the first federal census in 1756, the town was reported to have 1,050 residents, and by 1782 there were 1,562 (Connecticut 2022a). During the Revolutionary War, Enfield sent many of its citizens to fight as part of the Continental Army and at least 14 died in service (Winch 1886).

Enfield's industrial legacy began in the early 1800s with the manufacture of carpeting in the village of Thompsonville near the Connecticut River. By 1836, local factories maintained 120 looms and 300 adult employees. The town also had a village of followers of the Shaker religion, which started in England in ca., 1770 and moved to New England in 1774. The Shaker community in Enfield was established in 1780 and was still active well into the 1830s (Barber 1836). A second industrial village in Enfield, called Hazardville, began to grow up around the manufacture of gunpowder (Winch 1886). In 1844, the Hartford \& Springfield Railroad was built along the west bank of the Connecticut River. It crossed the east bank to the south of Enfield in East Windsor and passed through Thompsonville on its way to the state border (Turner and Jacobus 1989). The arrival of the railroad bolstered industry in Enfield and by the 1880s, multiple companies were clustered along the Scantic River (Winch 1886). As a result of this industrial activity, Enfield witnessed steady population growth through most of the nineteenth century. The town had 2,129 residents in 1830, by 1890 the population had increased to 7,199 (Connecticut 2022b). Despite this industrial boon, agriculture remained important, particularly the growth of fruit trees, grains, dairying, and tobacco.

In the early twentieth century, manufacturing in Enfield progressed and the town continued to grow. As of 1920, Enfield had 11,719 residents and in addition to agriculture, the town's principal industries included the production of carpets, coffin hardware, papers, and textiles (Connecticut 1920, 2022c). As in other parts of the Connecticut River Valley, tobacco was an important crop in Enfield at that time. The new technique of growing "shade tobacco" under tents had become standard, and it was both more profitable but also more expensive to grow than the open-field variety. As a result, large corporations began buying up small farms and over the century tobacco production declined (Alcorn 1970). By midcentury, the suburbanization trend began to take hold in the state, which was bolstered by the construction of highways. Interstate 91 had been built through Enfield in 1949, and over the following decades, the population grew dramatically (Oglesby 2014). In 1950, Enfield had 15,464 inhabitants and by 1970, this number had nearly tripled, reaching 46,189 (Connecticut 2022c, 2022d). By the early twenty-first century, the economic base of the town had shifted away from industry and agriculture. As of 2021, the majority of jobs were in tertiary-sector areas, namely retail, health care, hotels, and finance. At that time, the population had fallen slightly from its peak in 1970 to 44,143 residents (AdvanceCT and CTData Collaborative 2021). While manufacturing was not as prevalent as it once was, a
variety of items were still produced in Enfield in recent years, including water filtration systems, toys, wooden reels for wire and cables, electronic assemblies, envelopes, tools and gages, and ice cream. Vegetable and tobacco farming were still considered principal industries, as was evidenced by the agricultural fields present throughout the town, particularly in the eastern region (Connecticut 2020). Limited growth is projected for the town of Enfield as officials intend to encourage economic development, but in a manner that will preserve Enfield's agrarian roots and small-town character (Enfield 2021).

## History of the Project Area

The proposed project area is located in eastern Enfield in a region that was primarily agricultural land during the nineteenth century. An excerpt from an 1855 map indicates that the project area is located adjacent to what is now North Street (Figure 3; 1855). It is situated to the north of the Hazardville and Scitico neighborhoods, which were small population centers with houses, shops, and a hotel. The immediate surroundings of the project area were more rural in 1855, with homesteads located much farther apart. The house of A. Pease was situated across the street, and a house belonging to an individual named Parsons Simons was positioned to the northeast on North Street. Parts of the landscape changed over the subsequent years, and according to an excerpt from an 1869 map of the region, the street now called Park Street was present and ran perpendicular to North Street and to the west of the project area (Figure 4; 1869). Several more houses appeared in the area as of 1856 and the ownership on some of the existing properties had changed. A. Pease (now A. D. Pease) had moved to Park Street, and Parsons Simons (listed on the map as W. P. Simons) had moved across the street to Pease's former residence. On Park Street, across the street from A. D. Pease, were two buildings belonging to F . Gates, both of which were located approximately $152 \mathrm{~m}(500 \mathrm{ft})$ to the west of the project area. Within the parcel on North Street was the homestead of R. Jones; however, information concerning R. Jones could not be located during the background review portion of the project.

During the twentieth and early twenty-first centuries, parts of the region containing the proposed project area slowly transformed from agricultural land to residential development. An aerial photograph dating from 1934 reveals that the project area was located in agricultural fields, still on North Street, with Park Street to the west and railroad tracks to the east (Figure 5; 1934). St. Bernard's Cemetery is visible to the southwest of the project area. The project area itself consisted of cleared agricultural land and encompassed several tobacco sheds. Surrounding the parcel were several farms and a number of houses were situated along North Street and Park Street. The region remained much the same over the following years and as of 1986, the project parcel was still in a rural part of Enfield (Figure 6; 1986). Very little new construction had taken place as of that time and much of the area continued to be used as farm fields. Within the bounds of the project area was cleared land and all of the tobacco sheds had been removed. Over the following decades a significant amount of new construction took place and by 2019, the surrounding landscape consisted of a mix of commercial properties, agricultural fields, and forested areas (Figure 7; 2019). Today, a residential housing development is located to the west of the project area and St. Bernard's Cemetery is still situated near the southwestern corner of the project parcel. today, the project area contains the Pleasant View Golf Park, a driving range. There is a paved parking area and a small structure situated along North Street.

## Conclusions

The historical investigation indicates that the proposed project area is unlikely to be associated with any significant historical resources. Based on the historical use of the land for agriculture, there is the possibility of encountering remains of farmhouses, outbuildings, stonewalls, or other evidence of
historic farming. However, due to the parcel's recent role as a driving range, the land has been partially disturbed and the likelihood of encountering such evidence is low. In addition, though the project parcel encompasses the historical location of the homestead of R. Jones, this individual was not of local, state, or national importance. Any archaeological historical deposits associated with the project area are not likely to be considered historically significant.

## Chapter V <br> Previous Investigations

## Introduction

This chapter presents an overview of previously identified cultural resources situated within the vicinity of the proposed Facility in Enfield, Connecticut. This discussion provides the comparative data necessary for assessing the results of the current Phase IB Cultural Resources Reconnaissance Survey, and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the Facility are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites and National/State Register of Historic Places properties situated within $1.6 \mathrm{~km}(1 \mathrm{mi})$ of the proposed Facility (Figures 8 and 9). The discussions presented below are based on information currently on file at the CT-SHPO in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during the course of this investigation. Both the quantity and quality of the information contained in the original archaeological site and National/State Register of Historic Places properties forms are reflected below.

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

A review of data currently on file at the Connecticut State Historic Preservation Office, as well as the electronic site files maintained by Heritage resulted in the identification of three archaeological sites situated within $1.6 \mathrm{~km}(1 \mathrm{mi})$ of the project area; they are Sites 49-5, 49-7, and 49-10 (Figure 8). In addition, two National Register of Historic Places districts (Enfield Shakers Historic District and Hazardville Historic District) and 16 State Register of Historic Properties (49-22, 49-47, 49-48, 49-53, 49-54, 49-55, 4957, 49-58, 49-59, 49-94, 49-129, 49-131, 49-132, 49-133, 49-134, and 49-135) also have been recorded within $1.6 \mathrm{~km}(1 \mathrm{mi})$ of the Facility (Figure 9). These resources are described below.

Site 49-5
Site 49-5 is a prehistoric period occupation of an unknown time period or type that was identified off of Park Street in Enfield, Connecticut; it is located just to the west of the project parcel (Figure 8). The site was recorded by R. Gradie and L. Rivers of Public Archaeology Survey Team, Inc., (PAST) in June of 1978. At the time the site was recorded, the location was used for the cultivation of tobacco and corn, but the prehistoric use of the site is unknown. PAST staff recovered a single quartz flake from the site area and determined that the site was of unknown archaeological or historical importance. The submitted site form reports that it was "possible that [a] site exists but because [the] field had been planted [,] extensive surface collecting was not possible." At the time of its recording, Site 49-5 retained fair integrity. Site 49-5 was not assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It will not be impacted by the proposed project.

## Site 49-7

Site 49-7 is a prehistoric occupation that was identified on what is referred to as "Glen Arders Property" in Enfield, Connecticut (Figure 8). The site was recorded by R. Gradie and L. Rivers of PAST in June of 1978. At the time the site was recorded, the location was a residential housing subdivision, but was historically used as a pasture. PAST recovered projectile points from the site and, using the Ritchie classification system, determined that the site was of the Late Archaic and "Transitional" (Terminal Archaic) period. The site was previously excavated by M. Thompson in 1943 and described by Thompson
in a 1945 publication (Thompson 1945). The site is historically significant because it is one of few Terminal Archaic occupations in the area and has the potential to provide information concerning subsistence, settlement, and manufacturing during these periods. Site 49-7 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation ( 36 CFR 60.4 [a-d]). It is located well to the southwest of the project area and it will not be impacted by the proposed construction.

## Site 49-10

Site 49-10, also known as the Powder Hollow site, is a prehistoric occupation located between County Route 20 and the Connecticut River. It is situated to the east of Maple Street and to the north of Scantic River in the Hazardville section of Enfield (Figure 8). The site was recorded by the Connecticut Archaeological Society (CAS) in May of 1979. The Powder Hollow site, which was estimated at approximately two acres in size, was described as a multicomponent occupation that produced Archaic and Woodland period material culture. At the time the site was recorded, it was situated on "open space" and its historical use was listed as unknown. Between 1940 and 1945, M. Thompson, R. Irons, and R. Bidwell conducted archaeological survey of the site area, which produced a large quantity of prehistoric cultural material. Objects recovered from the site included lithic projectile points, lithic tools such as knives, scrapers, drills, and ground stone tools. Other notable elements of the site included hearths and ceramic sherds. The CAS reported that the site was archaeologically significant due to the quantity and diversity of cultural material that it produced, as well as its potential to provide information concerning prehistoric activities performed at the site. Site 49-10 was not assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation ( 36 CFR 60.4 [a-d]). It is located away from the Facility and will not be impacted by the proposed project.

## Enfield Shakers Historic District

The Enfield Shakers Historic District is the historical location of the only Shaker settlement in Connecticut; it was listed on the National Register of Historic Places in May of 1979 (Figure 9). This district was occupied by members of the Shaker community between 1780 and 1917, when the last members left Enfield. The Enfield Shakers were notable for their thriving garden-seed industry. This district is historically significant because it was occupied by members of the Shaker community and architecturally significant because the buildings reflect the communal nature of Shaker ideology. While the first Shaker buildings were erected in the 1780s, most remaining Shaker buildings were constructed during the community's zenith between 1830 and 1860. As of 1979, when the district was added to the National Register of Historic Places, 15 buildings from the original settlement remained (Table 1). They comprised approximately one sixth of the original settlement and included "the meetinghouse, one large brick dwelling, a large laundry building, five barns, four small workshops, a sawmill, an icehouse, and a slaughterhouse." The Enfield Shakers Historic District is located nearly $1.6 \mathrm{~km}(1 \mathrm{mi})$ to the northeast of the Facility location. The district is comprised of buildings located on Shaker, Taylor, and Cybulski Roads. In addition, the two structures on the Connecticut State Historical Register listed below fall within the Enfield Shakers Historic District (Figure 10). They are Shaker style residences. Neither the residences nor the Enfield historic district will be impacted, directly or indirectly, by the construction of the proposed Facility.

Table 1. Inventoried Connecticut State Register Properties in the Enfield Shakers Historic District

| State Register of <br> Historic Places Number | Structure / Property Name | Address | Type | Year Built | Style |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $49-47$ | South Family Shaker House | Cybulski Road | Residence | ca. 1820-1830 | Plain Shaker |
| $49-48$ | n/a | Cybulski Road | Residence | ca. 1850-1860 | Plain Shaker |

## Hazardville Historic District

The Hazardville Historic District is the location of both the Hazard Powder Company gunpowder production facilities and an associated nineteenth century town (Figure 9). The Hazardville Historic District, which was added to the National Register of Historic Places in February of 1980, encompasses the locations of both the former powder company site, known as Powder Hollow, and the associated company town. Together, the former production facilities and town cover 1,075 acres of land and include 260 contributing sites and structures. The Hazard Powder Company was in operation between 1835 and 1913. When the site was added to the National Register of Historic Places, the dams, canals, and buildings that comprised Powder Hollow were no longer standing. They had been replaced by a wooded area and only a few buildings that comprised the Hazard Powder Company remained standing. The public school building in the district is now used as a day care center. A former horse barn of the Hazard Powder Company, located at 32 South Maple Avenue, was converted into a square dancing hall in 1959; it is still used as a venue for special events. The foundations of 21 buildings of the original gunpowder factory complex (originally 200 buildings) can still be found near the Scantic River within Scantic River State Park. The Hazardville Institute building, at the corner of Hazard and Maple Avenues, was used for many years as a public hall and community center. It was abandoned in the 1970s and was saved from demolition when it was leased to the Hazardville Institute Conservancy. The building is currently undergoing renovation. When renovation is complete, there are plans for the building to include an exhibit concerning the history of the Hazard Powder Company. A total of 15 structures on the Connecticut State Historical Register, listed below, also fall within the northeastern limits of the Hazardville Historic District. They include 11 residences built in the Federal, Italian Villa, and Greek Revival Style, as well as a commercial building, church, and municipal structure built in the NeClassical, Victorian Gothic, and Italian Villa Style; none of these resources will be impacted by the proposed solar project (Table 2). Neither these residences nor the Hazardville Historic District will be impacted, directly or indirectly, by the construction of the proposed Facility.

Table 2. Inventoried Connecticut State Register Properties in the Hazardville Historic District

| State Register of <br> Historic Places Number | Structure / Property <br> Name | Address | Type | Year Built | Style |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $49-22$ | $\mathrm{n} / \mathrm{a}$ | Water Street | Residence | ca. 1800 | Federal |
| $49-53$ | $\mathrm{n} / \mathrm{a}$ | School Street | Residence | ca. 1840 | Italian Villa |
| $49-54$ | n/a | School Street | Residence | ca. $1860-1865$ | Civil War <br> Transition |
| $49-55$ | Hazardville Institute | Hazard Avenue | Municipal | 1869 | Italian Villa |
| $49-57$ | Hazardville Methodist <br> Church | Hazard Avenue | Church | 1880 's | Victorian <br> Gothic |
| $49-58$ | Hazardville Public School | Hazard Avenue | Commercial | 1880 | Neo-Classic <br> Victorian |
| $49-59$ | n/a | Hazard Avenue | Residence | pre-1800 | Colonial <br> Period |
| $49-94$ | n/a | Scitico Street | Residence | ca. 1825 | Greek Revival |
| $49-129$ | n/a | School Street | Residence | ca. 1840 | Greek Revival |
| $49-131$ | n/a | Hazard Avenue | Residence | 1840 | Greek Revival |
| $49-132$ | n/a | Hazard Avenue | Residence | 1840 | Greek Revival |
| $49-133$ | n/a | Hazard Avenue | Residence | ca. 1840 | Greek Revival |
| $49-134$ | n/a | Hazard Avenue <br> and Water Street | Residence | Pre.1800 | Federal |
| $49-135$ |  |  |  | ca. 1860 's | Greek Revival |

## Summary and Interpretations

The review of previously identified cultural resources in the vicinity of the proposed Facility indicates that the larger project region contains numerous prehistoric and historical cultural resources related to Native American habitation and resource extraction, as well as colonial farming and later industrial activities related to Enfield's history. None of the previously identified cultural resources sites will be impacted by the proposed Facility either directly or indirectly. Their presence, however, suggests that other archaeological resources may be expected within or near the Facility location.

## Chapter VI Methods

## Introduction

This chapter describes the research design and field methods used to complete the current Phase IB cultural resources reconnaissance survey of the proposed Facility in Enfield, 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 are 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 Facility area. Fieldwork for the project was comprehensive in nature and project planning considered the distribution of previously recorded archaeological sites located near the project area, as well as an assessment of the natural qualities of the region. The methods used to complete this investigation were designed to provide complete and thorough coverage of the entirety of the project area. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation.

## Field Methods

Following the completion of all background research, the Facility area was subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, GPS recordation, and systematic subsurface testing. The field strategy was designed such that undisturbed and gently sloping portions of the project area were 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 solar facility.

The subsurface examination of the project area was completed through the excavation of 170 of 170 (100 percent) planned survey shovel tests spaced at 20 meter ( 66 foot ) intervals along 13 transects located 20 meters (66 feet) apart (Figure 10). During survey, each shovel test measured $50 \times 50$ centimeters ( $19.7 \times 19.7$ inches) in size and each was excavated to a depth of at least 50 centimeters below surface ( 19.7 inches below surface) or 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<br>Office of Connecticut State Archaeology, Box U-1023<br>University of Connecticut<br>Storrs, Connecticut 06269

## Chapter VII Results \& Management Recommendations

## Introduction

This chapter presents the results of the Phase IB cultural resources reconnaissance survey of the proposed Facility in Enfield, 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 encompassing the Facility area; 3) a review of readily available historical maps and aerial imagery depicting the Facility area in order to identify potential historical resources and/or areas of past disturbance; 4) pedestrian survey and photo-documentation of the Facility area; and 5) subsurface examination of the work areas. 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). Field methods employed during the current investigation consisted of pedestrian survey, mapping, photo-documentation, and subsurface testing throughout the project area. Field results are discussed below.

## Results of the Phase IB Survey \& Management Recommendations

As discussed in Chapter I, the proposed project parcel encompasses approximately $19 . .65$ acres of land at 110 North Street in Enfield, Connecticut. The proposed project includes the construction of the solar facility and associated infrastructure, including 11,050 photovoltaic panels and associated electrical equipment. A proposed access road will originate from North Street and extend to the south along the western boundary of the project area. The Facility will interconnect with the local electrical grid along North Street which is located to the northwest, and a proposed access road will originate from North Street and extend to the south along the western boundary of the project area (Figure 10). The project area is currently characterized by mostly level topography. Historically, the land was used for agricultural production, but it was converted to a driving range approximately 30 years ago. Elevations throughout the Facility range from between 56 to 58 m ( 183.8 to 190.3 ft ) NGVD.

The current Phase IB survey consisted of pedestrian survey, subsurface testing, and mapping of the Facility area (Figure 10 and Photos 1 through 5). The subsurface testing regime associated with the Phase IB cultural resources reconnaissance survey resulted in the excavation of 170 of 170 ( 100 percent) planned survey shovel tests spaced at 20 meter ( 66 foot) intervals along 13 transects spaced 20 meters ( 66 feet) apart. A typical shovel test profile exhibited three soil horizons in profile and extended to a terminal depth of 65 centimeters ( 26 inches) below surface. The uppermost layer was identified as an Ap-Horizon (plow zone) that extended between 0 to 30 centimeters ( 0 to 11.8 inches) below surface; it was characterized as a layer of dark brown (10YR $3 / 3$ ) silt with medium sand. The underlying B-Horizon extended from 30 to 48 centimeters ( 11.8 to 19 inches) below surface and was described as a deposit of dark yellowish brown (10YR 4/6) silt with medium sand. Finally, the glacially derived C-Horizon consisted of a layer of light olive brown ( $2.5 \mathrm{Y} 5 / 4$ ) silt with fine to medium sand that extended from 48 to 65 centimeters ( 19 to 26 inches) below surface.

The subsurface testing effort resulted in the collection of several modern pieces of plastic, golf balls, twine, and bottle glass; they were not collected in the field. The only historical artifact collected from the project area was a whiteware sherd that was recovered during the excavation of Shovel Test 1 along Transect 10; it originated from the plow zone at depths between 20 to 30 centimeters ( 7.9 to 11.8
inches) below surface. The whiteware sherd was not found in association with any above-ground or buried architectural features; it was characterized as unassociated isolated find and was assessed not eligible for listing to the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). Thus, it was determined that no impacts to cultural resources are expected by the proposed construction of the solar facility, and no additional archaeological examination of the project area is recommended.

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Figure 1. Excerpt from a 1996 USGS 7.5' series topographic quadrangle image showing the location of the proposed development parcel and project area in Enfield, Connecticut (USGS 1996).


Figure 2. Map provided by All-Points Technology Corporation of the proposed solar development in Enfield, Connecticut.



Figure 4. Excerpt from an 1869 map showing the proposed development parcel and project area in Enfield, Connecticut (Beers 1869).


Figure 5. Excerpt from a 1934 aerial photograph showing the proposed development parcel and project area in Enfield, Connecticut (Fairchild 1934).


Figure 6. Excerpt from a 1986 Connecticut USDA aerial photograph showing the proposed development parcel and project area in Enfield, Connecticut (USDA 1986).


Figure 7. Excerpt from a 2019 aerial photograph showing the proposed development parcel and project area in Enfield, Connecticut (ECO 2019).


Figure 8. Digital map depicting the location of previously identified archaeological sites in the vicinity of the proposed development parcel and project area in Enfield, Connecticut.


Figure 9. Digital map depicting the locations of previously identified National Register of Historic Places properties in the vicinity of the proposed development parcel and project area in Enfield, Connecticut.


Figure 10. Excerpt from a 2019 aerial image showing the development parcel, project area shovel test locations, and proposed access road.


Photo 1. Representative view of the northern boundary of the proposed Facility area facing west.


Photo 2. Representative view of the southeastern corner of the proposed Facility area facing north.


Photo 3. Representative view of the southwestern corner of the proposed project area facing north. A portion of St. Bernard's cemetery is visible to the west.


Photo 4. Representative view of the south central portion of the proposed Facility area facing north across the driving range.


Photo 5. Representative view of the southeastern corner of the proposed Facility area facing south.

# Connecticurt 

August 10, 2022
Mr. David R. George
Heritage Consultants
PO Box 310249
Newington, CT 06131

Subject: Phase IB Cultural Resource Reconnaissance Survey Proposed Solar Facility<br>110 North Street<br>Enfield, Connecticut<br>ENV-23-0063

Dear Mr. George:
The State Historic Preservation Office (SHPO) has reviewed the archeological survey report prepared by Heritage Consultants, LLC (Heritage), dated April, 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 solar facility, which is to occupy an approximately 19.7 acre project area, located at 110 North Street, and is bordered by North Street and a gravel/sand mining operation on the north, wooded areas and wetlands on the east, agricultural fields to the west and south, and a portion of St. Bernards cemetery on the south. Access to the facility is to be from North Street. The project site currently occupied by a golf driving range. The submitted report is well-written, comprehensive, and meet the standards set forth in the Environmental Review Primer for Connecticut's Archaeological Resources.

Three previously recorded archaeological sites are located within 1 mile of the project area; however, they will not be impacted by the proposed action. Two properties (Enfield Shakers Historic District NR\# 79002663, Hazardville Historic District NR\# 80004061) are listed on National Register of Historic Places are located within 1 mile of the project area; however, distance and varying topography will prevent the facility from being visible form either resource; neither will be impacted by the proposed project.

## Connecticurt

Phase IB of the reconnaissance survey consisted of subsurface testing of the areas determined to have moderate to high archaeological sensitivity. A total of 170 of 170 planned shovel tests were excavated successfully throughout the proposed work area. A single historic period artifact, a whiteware sherd, was recovered, characterized as isolated field scatter, and not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [ad]). No other cultural features or materials from either historic or prehistoric periods were identified.

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

