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PHASE IB CULTURAL RESOURCES RECONNAISSANCE
SURVEY OF THE PROPOSED CANDLEWOOD SOLAR FACILITY
IN NEW MILFORD, CONNECTICUT

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ABSTRACT

This report presents the result of a Phase IB cultural resources reconnaissance survey of the moderate/high archaeologically sensitive areas associated with the proposed Candlewood Solar Project in New Milford, Connecticut. Heritage completed this project using a combination of pedestrian survey and shovel testing. Examination of the moderate/high archaeologically sensitive areas associated with the proposed solar facility and the potential construction parking and materials storage/staging area resulted in the identification of eight cultural resources loci (Locus 1 through Locus 8). Locus 1, 3, and 4, all of which were identified within the proposed solar facility area, contained small prehistoric flake scatters that likely represent single use episodes of the area for stone tool re-sharpening. Despite delineation testing, all three of these cultural resources loci failed to produce additional artifacts or evidence of cultural features. As a result, it was determined that the prehistoric occupations associated with Loci 1, 3, and 4 lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of them is recommended prior to construction of the proposed solar facility. Phase IB survey also resulted in the identification of historic period cultural materials representative of field scatters within Loci 1, 5, 6, and 8. Delineation shovel testing of these four areas also failed to identify significant amounts of cultural material or evidence of cultural features. Thus, they too lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of them is recommended prior to construction of the proposed solar facility and the potential construction parking and materials storage/staging area. Phase IB cultural resources survey of Locus 2 resulted in the identification of a single Early Archaic Period Bifurcate projectile point. Despite close intervals delineation testing, no additional cultural material or evidence of cultural features was identified within Locus 2. Consequently, Locus 2 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of it is recommended prior to construction of the proposed solar facility. Locus 2 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office. Finally, archaeological examination of the proposed solar facility also resulted in the identification of Locus 7, a prehistoric lithic workshop. This area contained multiple shovel tests that produced prehistoric lithic material from undisturbed subsoil contexts. It was assessed as potentially significant applying Criterion D of the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), which states that a resource "has yielded or may be likely to yield, information important in history or prehistory." It is recommended that the project sponsor develop an avoidance plan for this area in consultation with the Connecticut State Historic Preservation Office so that Locus 7 is not adversely affected by the proposed construction. If this is not feasible, then Phase II National Register of Historic Places testing and evaluation of Locus 7 should be completed prior to construction of the proposed solar facility. Locus 7 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

TABLE OF CONTENTS

CHAPTER I: INTRODUCTION	1
Project Description and Methods Overview	1
Project Results and Management Recommendations Overview	3
Project Personnel.....	3
Organization of the Report.....	4
CHAPTER II: NATURAL SETTING.....	5
Introduction.....	5
Ecoregions of Connecticut	5
Northwest Hills Ecoregion	5
Hydrology of the Study Region	5
Soils Comprising the Study Area.....	6
Hollis-Chatfield Soils:.....	6
Paxton and Montauk Soils:.....	6
Udorthent Soils:.....	7
CHAPTER III: PREHISTORIC SETTING	8
Introduction.....	8
Paleo-Indian Period (12,000 to 10,000 B.P.)	8
Archaic Period (10,000 to 2,700 B.P.).....	9
Early Archaic Period (10,000 to 8,000 B.P.).....	9
Middle Archaic Period (8,000 to 6,000 B.P.).....	9
Late Archaic Period (6,000 to 3,700 B.P.).....	10
The Terminal Archaic Period (3,700 to 2,700 B.P.).....	10
Woodland Period (2,700 to 350 B.P.).....	11
Early Woodland Period (ca., 2,700 to 2,000 B.P.).....	11
Middle Woodland Period (2,000 to 1,200 B.P.).....	12
Late Woodland Period (ca., 1,200 to 350 B.P.).....	12
Summary of Connecticut Prehistory	12
CHAPTER IV: HISTORIC SETTING.....	14
Introduction.....	14
Litchfield County History	14
Native American History of the New Milford Area.....	14
Seventeenth and Eighteenth Century History of the Town of New Milford.....	15

Nineteenth and Twentieth Century History of the Town of New Milford.....	16
Ownership History of the Study Area.....	19
Ownership of Parcel A.....	19
Ownership of Parcel B.....	21
Conclusions.....	22
CHAPTER V: PREVIOUS INVESTIGATIONS.....	23
Introduction.....	23
Previously Completed Cultural Resources Surveys Within the Vicinity of the Study Area.....	23
Previously Recorded Cultural Resources Within the Vicinity of the Study Area.....	23
Site 96-17.....	24
Site 96-50.....	24
Site 96-51.....	24
Site 96-59.....	24
Site 96-88.....	24
Site 96-89.....	25
Site 96-90.....	25
Summary and Interpretations.....	25
CHAPTER VI: METHODS.....	26
Introduction.....	26
Research Framework.....	26
Laboratory Analysis.....	27
Prehistoric Lithic Analysis.....	27
Historic Cultural Materials Analysis.....	26
Curation.....	27
CHAPTER VII: RESULTS OF THE INVESTIGATION.....	28
Introduction.....	28
Results of Phase IB Cultural Resources Reconnaissance Survey of Area 1.....	28
Locus 1.....	29
Results of Phase IB Cultural Resources Reconnaissance Survey of Area 2.....	30
Locus 2.....	30
Locus 7.....	31
Results of Phase IB Cultural Resources Reconnaissance Survey of Area 3.....	32
Locus 3.....	32
Locus 4.....	33
Locus 5.....	33
Locus 6.....	34
Results of Phase IB Cultural Resources Reconnaissance Survey of Area 4.....	34
Locus 8.....	35

CHAPTER VIII: SUMMARY AND MANAGEMENT RECOMMENDATIONS	36
BIBLIOGRAPHY	38

LIST OF FIGURES

- Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 2. Current construction plan for the proposed solar facility in New Milford, Connecticut.
- Figure 3. Excerpt from an 1853 map showing the location of the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 4. Excerpt from an 1859 map depicting the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 5. Excerpt from an 1874 map depicting the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 6. Excerpt from a 1934 aerial image depicting the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 7. Excerpt from a 1941 aerial image depicting the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 8. Excerpt from a 1997 aerial image depicting the solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 9. Digital map of the project parcel containing the proposed solar facility in New Milford, Connecticut (note this figure is associated with the property ownership section of the report).
- Figure 10. Digital map showing the locations of previously completed cultural resources investigations in the vicinity of the proposed solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 11. Digital map showing the locations of previously identified archaeological sites in the vicinity of the proposed solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.

- Figure 12. Digital map showing the locations of previously identified National Register of Historic Places properties in the vicinity of the proposed solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 13. Digital map showing the locations of previously identified State Register of Historic Places properties in the vicinity of the proposed solar facility, access road, electric interconnection corridor, and potential temporary construction parking and material and equipment storage area in New Milford, Connecticut.
- Figure 14. Excerpt for a 1996 USGS 7.5' series topographic quadrangle depicting the locations of the four test areas.
- Figure 15. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout the moderate/high sensitivity areas.
- Figure 16. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 1 and Locus 1.
- Figure 17. Overview photo of Locus 1 southeast.
- Figure 18. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 2, Locus 2, and Locus 7.
- Figure 19. Overview photo of Locus 2 facing southwest.
- Figure 20. Overview photo of Locus 7 facing northeast.
- Figure 21. Photos of bifurcate projectile point recovered from Locus 2 (a=obverse, b=reverse).
- Figure 22. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 2, as well as Loci 3 through 6.
- Figure 23. Overview photo of Locus 3 facing east.
- Figure 24. Overview photo of Locus 4 facing northeast.
- Figure 25. Overview photo of Locus 5 facing southeast.
- Figure 26. Overview photo of Locus 6.
- Figure 27. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 4 and Locus 8.
- Figure 28. Overview photo of Locus 8 facing northeast.

CHAPTER I

INTRODUCTION

This report presents the results of a Phase IB cultural resources reconnaissance survey for the proposed Candlewood Solar Photovoltaic Project in New Milford, Connecticut (Figure 1). Candlewood Solar LLC (Candlewood), acting through its contractor, Amec Foster Wheeler Environment & Infrastructure, Inc. (Amec Foster Wheeler), has requested that Heritage Consultants, LLC (Heritage) complete the cultural resources reconnaissance survey as part of the planning process for a proposed 20-megawatt (MW) AC (MWac) solar photovoltaic (PV) electric generating facility. Heritage previously completed a Phase IA cultural resources assessment survey of the project during September of 2017 (see below; Heritage Consultants, LLC 2017). All work associated with this reconnaissance survey was performed in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended, and; the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut Historic Commission, State Historic Preservation Office.

Project Description and Methods Overview

Candlewood is proposing to install a 20-MWac solar photovoltaic electric generating facility (the facility) in the Town of New Milford, Connecticut. It will be located on portions of three adjacent parcels that will accommodate the facility, an access road, and electric interconnection route (Figures 1 and 2). The facility portion of the project will be constructed on a single parcel of property located on the southern flank of Candlewood Mountain in west central New Milford. This area is situated to the northwest of Candlewood Lake, to the east of Candlewood Mountain Road, and to the southwest of Route 7. The project parcel encompasses a total of 163.5 acres, of which the solar array facility will occupy approximately 54.55 acres¹.

The facility location is partially wooded, with three (3) hay field/horse pastures totaling approximately 15.9 acres. The facility will be installed on the level to gently sloping areas of the parcel, including the three hay field/horse pastures. The solar array facility will be accessed via an existing dirt access road from Candlewood Mountain Road to the west. This access road provides current access to the hay field/horse pastures and will be improved for use during construction through the installation of 12 inches of graded gravel. The electric interconnection route is planned to follow existing cleared access road and utility corridors to the east to the extent practicable (Figure 1).

The facility will consist of approximately 60,500 solar PV panels mounted on steel racking supports and eight inverters each with a combined output of 2.5 MW AC. The total system size is 24.2 MW DC, with a total rated nameplate AC generating capacity of 20 MWac. The solar panels will be installed on a screwed-in mounting system due to shallow rock conditions, with vertical screws installed four to six feet into the underlying soil/rock across the area. The panels themselves will be oriented to face directly south at a tilt angle of 12 degrees. The panels will be assembled in a "landscape" orientation, with the top height of the highest panel being at approximately 7 feet above ground, and the bottom edge of the lowest panel approximately 2 to 3 feet above ground. The facility will be completely surrounded by a 7-foot high

¹ Subsequent to completion of the Phase IB cultural resources survey in September and October 2017, the footprint of the solar array (Facility) was reduced and a short segment of the electric interconnect route immediately east of the Facility was also altered slightly to align with a former road cut. Despite these modifications, the current Phase IB cultural resources reconnaissance survey covered all potential impacts to moderate/high archaeologically sensitive areas.

chain-link fence. The inverters will consist of eight pad-mounted 2.5 MW inverters that will convert the DC power generated by the panels to AC power that can be fed to the grid. The power will be fed from the inverters to transformers which will step up the voltage from 1,500 Volts (“V”) to 13,800 V, upon which the power will be routed through two 13.8 kilovolt (“kV”) conductors across the project area to the east to Route 7, whereupon they will connect with Eversource Energy conductors on Route 7. The latter are located approximately 1,465 m (4,800 ft) to the northeast from the location of the facility.

Tree clearing will be required for construction of the facility, the electric interconnection route, and to eliminate shading. The solar array facility will occupy approximately 54.55 acres within the 163.5 acre project parcel. The construction limit of work extends beyond the solar array fence line and is approximately 67.9 acres. The topography in the area proposed for installation of the facility slopes generally downward from the northeast to the southwest. Elevations along Candlewood Mountain Road in this area range from 199.3 to 219.2 m (654 to 719 ft) above mean sea level (AMSL). The facility will be located between elevations 221.9 and 279.8 m (728 to 918 ft) AMSL. The peak of Candlewood Mountain, north of the facility location, is situated at approximately 304.2 m (998 ft) AMSL. The electric interconnection route drops down the eastern flank of Candlewood Mountain before joining existing utility corridors to cross north of Candlewood Lake to Route 7.

Candlewood Solar also is considering potentially utilizing the existing hay/horse pasture located along Candlewood Mountain Road for parking and equipment/material storage during construction. The existing hay/horse pasture located along Candlewood Mountain Road is part of the approximate 163.5-acre parcel of property (26/67/1) and is approximately 5 acres in size. There is existing access to the hay/horse pasture from the existing access road off Candlewood Mountain Road. No work (grading, etc.) to the hay/horse pasture would be required for construction parking and material/equipment storage, no additional tree clearing would be required for its use, and no alteration to existing stone walls would occur. The construction parking and staging area will only be used during construction of the Project and is temporary in nature. Upon completion of construction, the hay/horse pasture would be seeded/mulched, as necessary and allowed to return to existing conditions.

As mentioned above, Heritage previously completed a Phase IA cultural resources assessment survey for this project. The assessment survey revealed that the proposed access road and interconnect route consisted of previously disturbed, steeply sloping, wet, and/or eroded/incised areas. Based on their landscape features and current state, no additional archaeological examination of these areas was recommended. The area that will contain the proposed solar facility is characterized by a mix of open field and forested areas, and it contains steep slopes on the northern, eastern, and southern margins. The central portion of the proposed facility area, in contrast, is characterized by level to gentle slopes that contain well drained soils in proximity to the Rocky River and associated wetlands. LIDAR imaging of this area also revealed numerous stone walls are present there. The results of the Phase IA investigation revealed that the central portion of the proposed solar facility area, which consists of approximately 35 acres of land along a north-south axis, can be considered to retain a moderate/high archaeological sensitivity. The parking and equipment/material storage also was visually reconnoitered and determined to retain a moderate/high archaeological sensitivity. Thus, the current Phase IB survey of these two areas was recommended.

The Phase IB cultural resources reconnaissance survey was completed utilizing pedestrian survey, systematic shovel testing along survey transects, detailed mapping, and photo-documentation of all moderate/high sensitivity areas. During survey, Heritage Consultants, LLC conducted the systematic excavation of shovel tests along parallel survey transects. Depending upon the size of the landform being tested the interval between shovel tests and survey transect was set between 15 m (45.9 ft) or 30 m (98.2 ft) intervals. In areas where cultural materials were identified, shovel tests were reduced to 7.5 m (24.6 ft) and 3.75 m (12 ft) intervals to delineate loci boundaries. Each shovel test measured 50 x 50 cm (19.7 x

19.7 in) in size and each was excavated to the glacially derived C-Horizon or until immovable objects (e.g., tree roots, boulders, etc.) was 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 cm (0.25 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 immediately upon completion of the archaeological recordation process.

Project Results and Management Recommendations Overview

Heritage completed this project using a combination of pedestrian survey and shovel testing. A total of 446 of 446 (100 percent) planned shovel tests were excavated in throughout the project area. This resulted in the identification of eight cultural resources loci (Locus 1 through Locus 8). Locus 1, 3, and 4, all of which were identified within the proposed solar facility area, contained small prehistoric flake scatters that likely represent single use episodes of the area for stone tool re-sharpening. Despite delineation testing, all three of these cultural resources loci failed to produce additional artifacts or evidence of cultural features. As a result, it was determined that the prehistoric occupations associated with Loci 1, 3, and 4 lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Loci 1, 3, or 4 is recommended prior to construction of the proposed solar facility. Phase IB cultural resources reconnaissance survey also resulted in the identification of historic period cultural materials representative of field scatter within Loci 1, 5, 6, and 8. Delineation shovel testing of these four areas also failed to identify significant amounts of cultural material or evidence of cultural features. Thus, they too lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Loci 1, 5, 6, or 8 is recommended prior to construction of the proposed solar facility or usage of the area proposed for potential temporary construction parking and material and equipment storage.

Phase IB cultural resources survey of Locus 2 resulted in the identification of a single Early Archaic Period Bifurcate projectile point. Despite close intervals delineation testing, no additional cultural material or evidence of cultural features was identified within Locus 2. Consequently, Locus 2 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of it is recommended prior to construction of the proposed solar facility. Locus 2 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

Finally, archaeological examination of the proposed solar facility also resulted in the identification of Locus 7, a prehistoric lithic workshop. This area contained multiple shovel tests that produced prehistoric lithic material from undisturbed subsoil contexts. It was assessed as potentially significant applying Criterion D of the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), which states that a resource "has yielded or may be likely to yield, information important in history or prehistory." It is recommended that the project sponsor develop an avoidance plan for this area in consultation with the Connecticut State Historic Preservation Office so that Locus 7 is not adversely affected by the proposed construction. If this is not feasible, then Phase II National Register of Historic Places testing and evaluation of Locus 7 should be completed prior to construction of the proposed solar facility. Locus 7 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

Project Personnel

Key personnel for this project included Mr. David R. George, M.A., R.P.A, who acted as Principal Investigator. He was assisted by Mr. Antonio Medina, B.A., who assisted in the field review portion of the project. Mr. George was also assisted by Mr. William Keegan, B.A., who provided GIS support services and

project mapping. Finally, Ms. Kristen Keegan completed this historic background research of the project and contributed to the final report.

Organization of the Report

The natural setting of the region encompassing the study area is presented in Chapter II; it includes a review of the geology, hydrology, and soils, of the project region. The prehistory of the project region is outlined in Chapter III. The history of the region encompassing the project region and study area is discussed in Chapter IV, while previous archaeological investigations in the vicinity of the study area are reviewed in Chapter V. The methods used to complete this investigation are discussed in Chapter VI. Finally, the results of this investigation are presented in Chapter VII, and management recommendations are contained in Chapter VIII.

CHAPTER II

NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the proposed solar project. Previous archaeological research has documented that a few specific environmental factors can be associated with both prehistoric and historic period site selection. These include general ecological conditions, as well as types of fresh water sources, soils, and slopes present in the area. The remainder of this section provides a brief overview of the ecology, hydrological resources, and soils present within the vicinity of the study area 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: Northwest Hills 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 study area.

Northwest Hills Ecoregion

The Northwest Hills ecoregion region consists of a hilly upland terrain characterized by "a moderately hilly landscape of intermediate elevation, with narrow valleys and local areas of steep and rugged topography" (Dowhan and Craig 1976:31). Elevations in the Northwest Hills ecoregion range from 228.6 to 304.8 m (750 to 1,000 ft) above sea level. The bedrock of the region is composed of schists and gneisses deposited during the Paleozoic (Dowhan and Craig 1976; Bell 1985). Soils in these uplands areas 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 of the Study Region

The project region is situated within proximity to several sources of freshwater, including Candlewood Lake, Rocky River, Bullymuck Brook, Housatonic River, and Great Mountain Pond, as well as several unnamed wetlands. The brooks, ponds, rivers, and wetlands may have served as resource extraction areas for Native American and historic populations alike. 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. These water sources also may have provided the impetus for the construction of water powered mill facilities during the eighteenth and nineteenth centuries.

Soils Comprising the Study Area

Soil formation is the direct result of the interaction of a number of variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to a number of diagenic 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 such as those that are present in within the current study area. In contrast, acidic soils enhance the preservation of charred plant remains.

A review of the soils within the study area is presented below. The study area is characterized by six major soil types. They include Hollis-Chatfield; Paxton and Montauk; Ridgebury, Whitman, and Leicester; and Udorthent. The first four of these types, when found on low slopes in proximity to fresh water and in an undisturbed state, are well correlated with both historic and prehistoric archaeological site locations. Ridgebury, Whitman, and Leicester soils, in contrast, typically are wet and do not correlate with prehistoric or historic period occupation sites. Udorthent soils also retain little, if any correlation with intact archaeological sites since they represent areas that have been disturbed in the past. Descriptive profiles for each soil type in the project area, which gathered from the National Resources Conservation Service, are presented below.

Hollis-Chatfield Soils:

Oi -- 0 to 3 cm; slightly decomposed plant material;

Oa -- 3 to 5 cm; black (10YR 2/1) highly decomposed plant material; moderate fine granular structure; very friable; many fine and very fine roots; abrupt smooth boundary;

A -- 5 to 18 cm; very dark grayish brown (10YR 3/2) gravelly fine sandy loam, light brownish gray (10YR 6/2) dry; weak fine granular structure; very friable; common fine, very fine, medium, and coarse roots; 10 percent gravel, 5 percent channers; very strongly acid; clear smooth boundary;

Bw1 -- 18 to 25 cm; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; moderate medium subangular blocky structure; friable; few very fine and fine roots, common medium roots; 10 percent gravel, 10 percent channers; strongly acid; clear wavy boundary;

Bw2 -- 25 to 41 cm; yellowish brown (10YR 5/6) gravelly fine sandy loam; moderate medium and coarse subangular blocky structure; friable; few fine and very fine roots, common medium roots; 10 percent gravel, 5 percent channers; strongly acid; abrupt smooth boundary;

2R -- 41 cm; schist bedrock.

Paxton and Montauk Soils:

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;

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.

Ridgebury, Leicester, and Whitman Soils:

Ap -- 0 to 25 cm; black (10YR 2/1) loam, dark gray (10YR 4/1) dry; weak medium granular structure; friable; 10 percent rock fragments; common medium distinct red (2.5YR 4/8) masses of iron accumulation lining pores; moderately acid; abrupt wavy boundary;

Bg -- 25 to 46 cm; gray (5Y 5/1) fine sandy loam; massive; friable; 10 percent rock fragments, few medium distinct pale olive (5Y 6/4) and light olive brown (2.5Y 5/4) masses of iron accumulation; strongly acid; abrupt wavy boundary;

Cdg -- 46 to 79 cm; gray (5Y 6/1) fine sandy loam; moderate medium plates; firm; 10 percent rock fragments; many medium distinct light olive brown (2.5Y 5/4) masses of iron accumulation; moderately acid; clear wavy boundary;

Cd1 -- 79 to 122 cm; olive (5Y 4/3) fine sandy loam; massive; firm; 10 percent rock fragments; few medium prominent dark reddish brown (2.5YR 3/4) masses of iron accumulation; moderately acid; gradual wavy boundary;

Cd2 -- 122 to 165 cm; olive (5Y 5/3) fine sandy loam; massive; firm; 10 percent rock fragments; moderately acid.

Udorthent Soils:

This complex consists of moderately well drained to excessively drained soils that have been disturbed by cuffing or filling, and areas that are covered by buildings and pavement. The areas are mostly larger than 5 acres. The complex is about 70 percent Udorthents, 20 percent Urban land, and 10 percent other soils. Most areas of these components are so intermingled that it was not practical to map them separately.

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 located in areas such 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, 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 the Area of Potential Effect.

Paleo-Indian Period (12,000-10,000 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 located 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 graters, 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, graters, 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 3,700 B.P.). These periods were devised to describe all non-farming, non-ceramic producing populations in the area. Regional archaeologists recently have recognized a final "transitional" Archaic Period, the Terminal Archaic Period (3,700-2,700 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 and 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, 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 located 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 point 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; 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 m² (5,383 ft²). 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; Wiegand 1978, 1980).

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 archaeologists. 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 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 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 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; Wiegand 1983).

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 most 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 study 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

HISTORIC OVERVIEW

Introduction

The proposed solar facility, electric interconnection route, access road, and potential construction parking and material and equipment storage area are located near the western border of the Town of New Milford, in Litchfield County, Connecticut. The facility area is positioned on a relatively level area of the southwestern slopes of Candlewood Mountain, a hill and associated ridge at the northern end of Candlewood Lake that is situated nearly 328m (1,000 ft) NGVD. The electric interconnection route is located at lower elevations and adjacent to an artificial reservoir, an extension of Candlewood Lake, that was created in the 1920s. The access road, which provides access to the facility from Candlewood Mountain Road contains rocky soils and slopes. The potential temporary construction parking and material and equipment storage area is located in the southwestern portion of the project area, adjacent to Candlewood Mountain Road, at an approximate elevation range of 213 to 216 m (700 to 710 ft) NGVD. The remainder of this section provides a general history of the region containing the study areas, as well as a property history of the solar facility.

Litchfield County History

Although some colonial claims and purchases from Native Americans occurred in this area prior to 1700, and there was some Dutch presence in the northwestern corner of the county and state, extensive English colonization did not begin until after 1700. This region is a rugged, upland, interior area of the state; navigation of the main river, the Housatonic, was only possible in its southernmost reaches, well outside this county (Collier 1974). Nevertheless, population increased quickly enough that the new Litchfield County was established in 1751 to handle the judicial needs of the region. Although the county's small rivers and streams provided water power for small-scale industry during the nineteenth century, no town in Litchfield County developed a population of 10,000 until 1900, when Torrington reached 12,000. The major resource of the area was a supply of iron ore, especially in the northwesternmost towns, that bolstered the locally-important nineteenth-century iron industry. One regional effect of this industry was the deforestation of many of the hills for the making of charcoal to fuel the forges, which also left the area dotted with the remains of charcoal "mounds" from the burning process (Gordon and Raber 2000). With limited amounts of good agricultural land and considerable distances from the large cities of the region, many of Litchfield County's municipalities struggled to maintain their populations during the nineteenth century. Most of the county's growth has occurred after 1900 and even more since 1940, as automobile transportation by improved roads made the region more accessible for residence, recreation, and business. Nevertheless, only five of the county's 26 municipalities had over 10,000 residents in 2010 (Keegan 2012). In general, Litchfield County towns focus on their quality of life and rural character as their most valuable features.

Native American History of the New Milford Area

Relatively little is known about the Native Americans of the Northwest Highlands region of Connecticut. Given the rough topography and elevation of the general area, it may be assumed that pre-Contact Native Americans there were seasonally shifting horticulturists who also relied a great deal on hunting and fishing for their livelihoods. Post-contact development in the region included the arrival of many lowland natives who had been pushed or driven out by the colonists. Documented colonial-era villages in the Northwest Highlands are mainly located along the Housatonic River, which is only about 1.6 km (1 mi) to the east of the study area. Early historians of Connecticut's Native Americans, notably J. W. De Forest

(1852), believed that before colonial settlement the northwestern part of Connecticut was an entirely uninhabited wilderness through which Mohawk raiding parties from New York passed at will. Since early historians have focused largely on political interactions with the larger Native American tribes, it is not surprising that De Forest would overlook the small communities that most likely existed in the northwest. According to Matthias Spiess, an early twentieth century anthropologist, the Mohawks claimed what is now northwestern Connecticut, so that none of the other tribes dared settle there. However, by the early eighteenth century the Mohawks' influence had declined and a variety of other Native American groups moved into the region (Spiess 1934).

The keys to understanding Native American settlement in the Northwest Highlands are its history of early Dutch settlement, disease, and the lateness of extensive colonization of the area. Substantial research by Shirley Dunn (1994, 2000) has revealed that the Mohican tribe maintained a territory extending from what is now Dutchess County, New York to Lake Champlain and from the east bank of the Housatonic River westward past Schenectady. This does not mean the literal east bank of the Housatonic, but some difficult-to-define distance eastward from it, probably including at least four or five miles, well into New Milford and other Connecticut towns. Because, as is discussed below, the eastern boundary of New York was poorly defined, enterprising Dutch colonists purchased Native American rights to the area. Between 1685 and 1704, a series of their purchases from supposed Mohican landholders effectively cleared the title to this area in both English and Dutch eyes. These Native groups also suffered badly from repeated disease outbreaks and Mohawk raiding parties (Wright 1905).

Originally known as Weantenock, the site of the future New Milford appears to have been purchased from local Indian groups twice. The first purchase was in 1670, when, with the legislature's approval, three individuals bought an area that is said to have contained 26,000 acres of land on both sides of the Housatonic River (Orcutt 1882). No colonization occurred after this transaction, however, and a subsequent deed, dated February 8, 1703, was acquired by a larger group of colonists. It refers to a "draught" or map and describes a piece of land bounded to the east by Woodbury, to the south by Danbury, to the west by "the mountain" and to the north by a line drawn from a brook at the northwest corner eastward to an imaginary line extending from the Woodbury line (Orcutt 1882). The 1703 deed was signed by 15 Native Americans, of whom Papetoppe was the first listed (De Forest 1852). The 1703 deed also reserved the Indians' planting field to themselves, but in 1705 John Mitchell of Woodbury secured a purchase of this area, which he transferred to the town's inhabitants in 1714 (Orcutt 1882). The designated Native American "owner" of this tract was Shamenunckgus, who signed the deed first, but it was also signed by Papetoppe and 10 others (De Forest 1852).

Notwithstanding these sales, and as was not uncommon at a time when very few white colonists had moved into the area, most of the Indians remained in the region. They maintained a village near the falls of the Housatonic, a short distance south of the colonist's new village; however, in 1736 many of them moved northward and outside the bounds of New Milford. The 30 or so who remained in New Milford converted to Christianity by 1642, due to Moravian missionary activity in the region, which successfully petitioned the colony legislature for funding their education. Over time, however, more of them moved away, and by 1774 there were no Native Americans reported as living the town. They continued to use their right to fish at the falls in New Milford through at least the middle of the nineteenth century, however (De Forest 1852).

Seventeenth and Eighteenth Century History of the Town of New Milford

The three 1670 purchasers were given the right to organize a settlement there, but the legislature also provided that "if the place be not planted in fower [four] years it shall return to the Court's dispose againe" (Connecticut, *Public Records*, Vol. 1, Pg. 128). Apparently, nothing was done, because in 1702 the legislature gave permission to the proprietors of the coastal town of Milford to purchase lands for a new town in the same area. The northern line of this purchase, described above, was subsequently a

source of conflict between New Milford and the later-established town of Kent (Orcutt 1882). After the 1702 and 1703 transactions were completed, the 109 proprietors of the new town began the settlement process, with house lots being surveyed (or “laid out”) in the south-central part of town where the present town center is still located (Orcutt 1882).

Meanwhile, the more northerly parts of the future Litchfield County became embroiled in a lengthy ownership dispute. In 1687, the Colony of Connecticut granted ownership of all the land lying between the Housatonic River on the west, and the towns of Farmington and New Milford on the east, to the towns of Hartford and Windsor. The area west of the Housatonic was not included because of uncertainty about whether it was within the colony’s official boundaries. This was intended to protect Connecticut territory from possible interference by the newly-appointed Governor Andros, but he departed the colonies before anything came of that. The problems arose when, twenty years later, the town of Hartford began attempting to cement its claim to this large area of land, despite the fact that it was well known that the 1687 measure had been an expedient. The dispute involved half the land in the future Litchfield County; although Hartford and Windsor managed to establish the town of Litchfield between 1717 and 1719, after 1719 the colony government forbade any further laying out of land in the so-called “Western Lands” until things were sorted out (Crofut 1937). Ultimately, the colony government agreed to a compromise and in 1729, the two towns and the colony divided the land (less the previously laid out section of Litchfield) equally between themselves, with the colony receiving the western half and the two towns the eastern half (Crofut 1937).

There was also the problem determining the location of the boundary with New York State, which had begun while the latter was still known as New Netherland. A 1650 agreement with the Dutch was rendered irrelevant by the English conquest of their colony. The boundary statements of the two colonies’ charters were in direct conflict, a fact that led to a 1664 agreement, efforts to survey the line in 1670, 1674, 1683, 1719, 1725, and finally 1731 (Bowen 1882). Most of the upper Litchfield County colonization occurred after the final disposition of the colony line.

The proprietors’ rights that Milford acquired in 1702 could be sold, and as a result John Noble Sr., of Westfield, Massachusetts, was the first to settle there in 1707. The earliest center of settlement was a little north of the current downtown (Crofut 1937). The town’s Congregational church, an essential feature and special taxation district of every colonial Connecticut town, was formally organized in 1716, but no meetinghouse was built until 1720. During the Revolutionary War, the town of New Milford supported the soldiers and their families with food donations (J. W. Lewis & Co. 1881). Reportedly, the first bridge across the Housatonic River was built here in 1737 (Barber 1837). By 1762, only 55 years after the first white colonist arrived, the town’s population had already grown to 1,731, and by 1774 it had added another thousand. Growth slowed thereafter, however, and by 1790 the population had only reached 3,167 (Keegan 2012). Although there is good alluvial soil in several of the river valleys, especially that of the Housatonic, there are also many hilly sections with relatively limited agricultural potential. In addition, as noted above, the whole region was remote from the more populous markets and good means of transportation.

Nineteenth and Twentieth Century History of the Town of New Milford

Consistent with its colonial history, New Milford’s population remained below or around 4,000 throughout the nineteenth century, although it was a very large town in area, and remained one despite contributing part of the territory of the town of Washington in 1779 and all that of Bridgewater in 1856. Of course, in 1800 the largest place in the state had only 5,437 residents; but in 1850 the largest had 20,000, and in 1890 the largest 86,000 (Keegan 2012, Barry 1985). Despite the town’s small size, diversity in religious observance began to appear in New Milford after 1800. A Methodist Episcopal church was organized at the village of Lanesville in 1822, and another in 1833 in New Milford village; church buildings for these congregants were constructed in 1826 at Northville, in 1828 at Laneville, and

in 1850 at New Milford. Gaylordsville had its own Methodist Episcopal Church also, which was organized in 1824 and built a church building in 1826. Baptists congregations appeared at Northville in 1814, and in Gaylordsville about 1830. Quakers organized in 1831 and built a meetinghouse in 1842, though it is not clear where in town it was (J. W. Lewis & Co. 1881).

According to an 1819 gazetteer, the county had plenty of good land for wheat, and focused mainly on products that could be shipped longer distances – meat, cheese, butter, and grain. It also referenced the importance of the iron industry, which was focused around the ore deposits in the northern part of the county, and the many water-power options that supported a number of textile-related industries. About New Milford specifically, the gazetteer mentions two shad fisheries on the Housatonic River, and quarries for slate and marble. Industries included four iron-making forges, for which the ore was imported; a woolen factory, a hat factory, four tanneries, and several typical facilities for processing grain, wool, and newly-woven cloth. Its agricultural production was consistent with those of the county as a whole, with wool added. Seven general stores, 16 schools, four physicians, three clergymen, and three attorneys made up the stated tertiary sector activity. The main village beside the Housatonic was described as having 60 dwelling houses, a post office, some mechanics' shops and several of the stores (Pease and Niles 1819). As part of many new states' efforts to encourage commerce by improving transportation, corporations were chartered to build or improve roads in exchange for the privilege of charging tolls. Four of these ran to New Milford village, and another across the northern edge of the town. Only one, the New Milford & Sherman Turnpike, ran east-west to New Milford village. Incorporated in 1818, the company built its road and a Housatonic River bridge in anticipation of linking with a major turnpike in New York that never appeared; when the bridge was destroyed by an ice-laden flood in 1837, the corporation was asked to be dissolved, and the legislature reduced its responsibilities to maintaining what was called "Boardman's Bridge" (Wood 1919).

Many turnpike companies struggled to make money, as traffic (or willingness to go through the tollgates) turned out to be inadequate, and after only a few decades the new railroads began to take even more business away from them. The construction of the Housatonic Railroad, which mostly followed the course of the river, followed upon a failed 1820s scheme to build a canal along the river. In 1836, the Housatonic Railroad Company was incorporated, planning to run from the Massachusetts state line to one of three possible southern locations (the coastal city of Bridgeport was finally selected). The road was built from Bridgeport to New Milford by 1840, and soon extended northward to the state line as planned (Turner and Jacobus 1989). Although this road – and it was the only railroad to pass through New Milford – became economically important, it was not the immediate path to economic and population growth that had been envisioned.

Town residents founded a library in 1796; the First National Bank of New Milford was established in 1852 and the New Milford Savings Bank was organized in 1858. A newspaper, *The Housatonic Ray*, was established in New Milford in 1872 and continued in publication for some time, in company with *The New Milford Gazette*, established 1877 (J. W. Lewis & Co. 1881). In 1837, New Milford was still described as an agricultural town, although with some granite and marble quarrying and some hat making in the future town of Bridgewater (Danbury, to the south, was the state's major hat making town). At that time, the town had nine churches, two each of Congregational (the one in New Milford village had been built in 1833), Episcopal, Baptist, and Methodist, and one Quaker (Barber 1837).

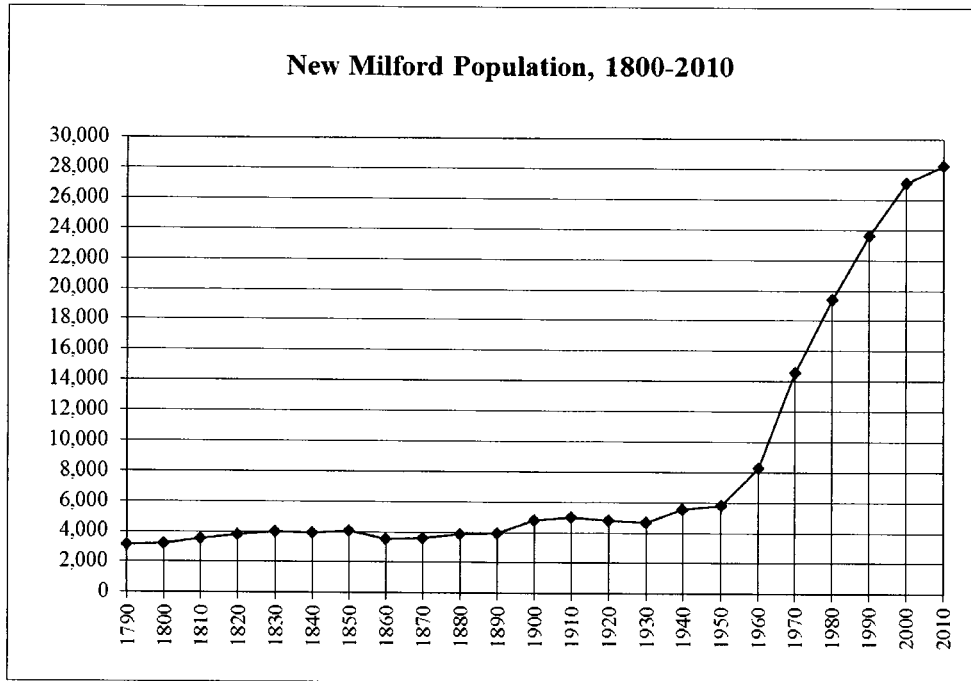
According to the 1850 industrial census, New Milford had 39 firms that made at least \$500 of product in the prior year, which on average employed a total of 246 men and 53 women. The variety of firms was interesting: six shingle-cutters, five each of hat makers and tanners, four each of plaster and flour mills, three stone-cutting mills, and one or two instances of firms ranging from making fire brick to boots to mattresses to drums, and one maker of machines such as carding machines. One of the fire brick making firms was located not too far to the north of the access road leading to the proposed facility (see Figures 3

through 5). Most of the firms had 10 or fewer employees, but there were four exceptions, as shown in the chart below (U.S. Census 1850). It appears that none of the industries in the town dominated the town's economy, and instead a diverse array of economic activities was founded and closed at various times over the years. As was already noted, however, these manufacturing enterprises were not large enough to increase the town's population very much, only perhaps to maintain a steady population.

Firm Name	Product	Capital \$	M. Empl.	F. Empl.	Product \$
G. Sanford & Sons	Wool Hats	10,000	100	30	216,000
E. Noble & Sons	Boots	6,000	20	7	20,000
Smith & Irwin	Hats (wool felt)	6,000	15	0	40,000
Aspetuck Mfg. Co.	Textile (wool tweed)	10,000	6	6	15,000

During the nineteenth century, New Milford farmers added tobacco cultivation to their repertoire, the first efforts being started in 1852. Others followed, so that warehouses were built in town in 1868 and 1869, and in 1880 handled some five thousand cases of tobacco (J. W. Lewis & Co. 1881). This tobacco was "a tough, strong-textured, dark green shade of tobacco. It was used as the so-called 'binder,' in the manufacture of cigars" (Peck 1991, 117). After 1910, tobacco growing increased substantially for a time, before falling off again (Peck 1991).

The 1880 town grand list reported 797 dwelling houses, 90 manufacturing and retail firms, and 3,304 cattle (J. W. Lewis & Co. 1881). The 1880 population was 3,907 (Keegan 2012). Despite its advantages of water power and transportation, New Milford was staying relatively small. In fact, the town saw a slight decline in population between 1910 and 1930, but after 1930 it began to rise again, approaching 6,000 in 1950 (see the population chart below; Keegan 2012). In 1932, the town's economic activities were described as "agriculture (tobacco a specialty), tobacco packing, manufacturing of wearing apparel, upholstery, lounges and chairs, lime burning, gold or silver-plated ware, and bleaching and dyeing of fabrics" (Connecticut 1932, 292). Again, a mix of different industrial activities is recorded, but only modest population growth.



After 1950, when widespread automobile ownership and suburbanization increased populations in most Connecticut towns, New Milford was not an exception; between 1950 and 2000 the population leaped from 5,799 to 27,121 (Keegan 2012). By 2005, 17.9 percent of jobs in town were in the manufacturing sector, 1.5 percent in agriculture, 8.1 percent in construction and mining, and the remaining 72.5 percent in various segments of the service sector. As of 2000, the majority of New Milford workers (5,236) lived in town, while an additional 3,121 commuted to Danbury (CERC 2006). The latter pattern indicates that one result of suburbanization in New Milford has been to allow businesses to flourish there, rather than transforming the town into a bedroom community with little commerce of its own. As of 2010, the town's rate of growth had decreased and the population had only reached 28,142. It had 863 business firms (agriculture omitted) employing 8,334 people; 51 firms and 705 jobs were in manufacturing, but over 50 percent of the jobs were in the tertiary sector (retail, health care, government, accommodation and food service). The second-largest place of employment, after New Milford itself, was still Danbury (CERC 2016).

Ownership History of the Study Area

A review of the New Milford land records for the region containing the study area revealed that the land ownership in this area is very complex. Further, it is beyond the scope of this project to collect and analyze every land transaction that took place within the study area. Therefore, in keeping with the purpose of the Phase IA assessment survey, a land ownership investigation of the central portion of the study area was completed in order to get a sense of the types of uses the study area might have witnessed in the past, thereby providing a point of departure for developing the range of possible historic land uses, and by extension, the types of historic archaeological deposits that might be expected there.

According to the historical New Milford land records, between about 1936 and 1944, Carl M. Dunham Sr., had purchased numerous pieces of land in the vicinity of the study area. According to the 1940 census, at the beginning of his career Dunham, Sr., was 29 years old and a lodger, along with two others, in the home of an elderly Kittie H. Todd and her daughter. He was single, born in Connecticut, was not only a lawyer but already a probate judge, and claimed an income of \$5,000 in 1939 (U.S. Census 1940). Prior to his death in 1969, he was able to buy some 900 acres of land in New Milford and two other towns, and built the Candlelight Airport, an inn, and the family home (*Dunham v. Dunham*, 204 Connecticut 303 [1987]). The 1934 aerial depicted in Figure 6 shows that at that time most of the study area contained cleared fields and/or pastures, except for the northernmost fringe and a well-defined area near the center. The definition of the various fields suggests that many of them were lined with stonewalls, while especially in the southern section there appeared to be fencing instead. Buildings in the region, including some substantial farmsteads, were located close to the road and outside the study area (Figure 6). By 1941, most of the study area had been allowed to revert to forest except for a small number of fields in the southern part. Many other parts of the region remained cleared, however, and presumably were part of active farms (Figure 7). Even as the town's population rose sharply during the decades after 1950, the project region remained largely undeveloped; it was not until the end of the twentieth century that housing developments penetrated very far south along Candlewood Mountain Road (Figure 8).

Figure 9 shows the relationship between the parcel researched (identified as the "Current Parcel" and based on the Town Clerk's map #3142), the approximate study area, and the two parcels that have been most successfully researched: Parcel A (based on Town Clerk's map #990) and Parcel B (based on Town Clerk's map #399-R). A review of the ownership of Parcels A and B is presented below.

Ownership of Parcel A

Parcel A was transferred to Carl M. Dunham Jr., by Candlelight Enterprises LLC (of which Dunham was the president) in 1998, making it a late addition to the property. Candlelight Enterprises LLC had acquired it in 1980 from Leonie A. Troy of Philadelphia (New Milford Land Records, Vol. 410, Pg. 580 and Vol. 285, Pg. 572). Map #990 was prepared for the 1980 sale and indicates the presence of a house and garage

next to the road. Leonie had inherited the parcel from her husband William E. Troy in 1962, and he had bought it from the estate of Lyman N. Hine in 1934, reporting that he lived in New York City (as he also did when he passed away) and that Hine lived in Nassau County, New York (New Milford Land Records, Vol. 150, Pg. 463 and Vol. 90, Pg. 561). According to the 1940 census, William Troy was a 36-year-old literature instructor and the couple lived at Bennington College in Vermont (U.S. Census 1940). Further research reveals that William (1903-1961) attended Yale, posthumously received the National Book Award in 1968 for his *Selected Essays*, and had moved back to New York in 1945. Leonie was also known as Léonie Adams (1899-1988); she was a poet, editor, and teacher (notwithstanding the 1940 Census's failure to mention that Bennington College also employed her). She received several awards for poetry books in the 1950s (Yale n.d.). Like many New Yorkers, the couple likely used this property as their summer home.

Lyman N. Hine received the property as a gift from his parents, Francis L. and Mary I. Hine, in 1922, when they lived in New York City and he lived in Locus Valley on Long Island; the deed mentioned that the property included "an old dwelling house" (New Milford Land Records, Vol. 78, Pg. 5). The 1920 Census identified Lyman as a 31-year-old manufacturer of cotton oil (under the name American Cotton Oil Company), living in the village of Locust Valley in the town of Oyster Bay, Long Island. His household included his wife Sibyl, two children under five, and three foreign-born servants. In the same year, Francis L. Hine was a 69-year-old bank president living at 270 Park Avenue in Manhattan with his wife and five foreign-born servants (U.S. Census 1920). Francis bought the property in 1911 from Katharine and Michael Kelly of New Milford, who both signed the deed with a mark (New Milford Land Records, Vol. 70, Pg. 187). The 1910 Census reported that the Kelly Family lived on Candlewood Road and were Irish-born, Michael being a farmer aged 72 and Catherine aged 65; she had borne 8 children who were all alive at the time of the census, and two of the young-adult daughters still lived with them (interestingly, the girls had been born in Texas). Katharine and Michael Kelly had arrived in the United States in the early 1860s and he was a naturalized citizen (U.S. Census 1910).

Katherine Kelly had first bought the land in two pieces. The rear 19 acres and 111 rods (or 19.69 acres), part of which comprises the study area, was purchased from Andrew G. Barnes in 1910. He had bought it (along with a second piece well to the south) from the estate of William H. Hine in 1898 (New Milford Land Records, Vol. 69, Pg. 362 and Vol. 63, Pg. 179). Both of these deeds identified the abutting owners as:

- N Andrew G. Barnes, William H. Hine (deceased) now Welton;
- E Charles E. Griffin, J. B. Merwin;
- S J. B. Merwin, Kowalksi (formerly Waldron) [= Parcel B]; and
- W Michael Kelly, William H. Hine (deceased).

In 1900, the Kellys were also living in New Milford, farming, with their two youngest sons (19 and 16) and daughters (12 and 9) living with them (U.S. Census 1900). Katherine had bought seven pieces of land in 1897, including the 67-acre homestead of the late George Hine and the 7.75 acres of land (plus old dwelling house) that make up the rest of Parcel A, from Mary M. Hine (New Milford Land Records, Vol. 61, Pg. 400). The 1900 Census reported the 78-year-old widow Mary M. Hine living alone on Whittlesey Avenue in downtown New Milford (U.S. Census 1900). According to the deed, the 7.75-acre piece had the abutting owners:

- N Estate of William H. Hine;
- E Estate of William H. Hine;
- S Estate of Edward Waldon; and
- W Highway

It seems more probable that the Katherine and Michael lived at the former George Hine homestead than in an old house on a small piece of land.

The 1874 historic map of the town shows "G. Hine" north of where Parcel A reaches the road, along with L. Hine, the "fire brick" factory owned by the two, and W. H. Hine. The structure likely to be associated with Parcel A was only marked "L.H.," but the next to the south was "E. Waldron" (Figure 5). The 1880 Census appears to follow this sequence of structures closely, with George and Mary Hine (age 53 and 57) followed in the census page by Lyman Hine (age 87) and daughter Louisa, then William H. and Elizabeth Hine (64 and 61). The census marshal identified both George and William as farmers and brick makers. Next came William H. and Delia Potter (age 32 and 19), with the husband working at brick making, then William E. and Sarah Dutcher (age 33 and 28), with the husband working as a farm laborer, and finally Edward and Catherine Waldron (age 35 and 37), with the husband also called a farm laborer. The Waldron Family had six children between 11 and 3 years of age, and the Dutchers four children between the ages of 9 and 1, while the Potters had just a one-year-old daughter; each of the Hines had at most an adult daughter living with them (U.S. Census 1880). It seems probable that it was the Dutchers who lived in the house on Parcel A, but we cannot be sure.

The Hine family arrived on the west side of Candlewood Mountain in the 1770s, when Stephen (1754-1833) (son of Stephen Hine of Woodbridge) bought 138 acres of land there. His father gave him another 215 acres he had received as payment for housebuilding, and he married Naomi Peck in 1782. They added the mill facilities at the mouth of the Rocky River in 1798; their sons were Clark, William, Anan, Isaac, and Lyman. It was Lyman (1793-1881) whose sons were William H. and George (as well as James, who became a doctor, and Louisa, who was the 61-year-old single daughter living with her widowed father in 1880). George (b. 1826) married Mary Merwin in 1857, and William H. married Elizabeth Gaylord in 1843 (Orcutt 1882). In short, the ownership history of Parcel A, and much of the rest of the study area, is probably to be found in Hine family probate records. In the 1853 historic map of New Milford, both L. Hine and W. H. Hine (as well as their fire brick factory) were established along the road to the west of the proposed facility location (Figures 3 through 5). The fire brick business appears to go back to their uncle Anan Hine (1789-1860), who reportedly started it in 1833 (and was also involved in the family's clothing works, mills, and store, and the Housatonic Railroad). Although Anan did have sons, it seems clear that it was his nephews who at least ran the business and may have come to own it. The Hine Family is also the most probable owner of most of the land lying north of Parcel A, although this has not been confirmed.

Ownership of Parcel B

Carl M. Dunham, Sr., purchased Parcel B from John R. and Beatrice M. O'Leary in 1964 (New Milford Land Records, Vol. 165, Pg. 429) (Figure 9). It was the O'Learys who had Map #399-R made as they sought to sell their property. This map, like the one for Parcel A, shows a house and garage next to the road while the rest of the property stretched eastward up the hill. The O'Learys had bought the land in 1952 from Alva M. Ferry of Bethel, who had inherited it from Robert H. Ferry of Bethel a few months before (New Milford Land Records, Vol. 119, Pg. 48 and Vol. 117, Pg. 516). In 1941, Ferry had foreclosed on a mortgage on the property (including a dwelling and other buildings) that he received from Anna Curran Griffin of New York City in 1936 (New Milford Land Records, Vol. 91, Pg. 120). It had come to Griffin from Ferry via two other transactions, Ferry having bought it from the estate of William H. Deal of Brooklyn, NY, in 1931 (along with an additional piece) (New Milford Land Records, Vol. 87, Pg. 417). Deal had owned it since 1913, when he purchased it from John J. Cassidy of Woodbury (New Milford Land Records, Vol. 71, Pg. 317). In fact, the land changed hands a total of three times in 1913; the first was when Felix Kowalksi of New Milford sold it (New Milford Land Records, Vol. 70, Pg. 422).

Kowalski had acquired the land in two transactions, the first from the estate of Edward Walden in 1902, containing 15 acres and unspecified buildings. At that time, the New Milford Land Records (Vol. 91, Pg. 120) described the property's abutters as:

N Catherine Kelley, Andrew G. Barnes deceased;
E J. Butler Merwin;
S J. Butler Merwin; and
W highway

According to the New Milford Land Records (Vol. 67, Pg. 200), the eastern 10 acres he purchased from J. Butler Merwin in 1907, described the abutters as:

N Andrew G. Barnes;
E Marshall Marsh (deceased);
S J. Butler Merwin; and
W Andrew G. Barnes and the grantee

In the 1910 Census, Felix Kowalski and his wife Anna (ages 48 and 50) were identified as Polish-speaking Austrians who had arrived in the United States in the 1880s. He worked as a laborer at a lime kiln. She had borne nine children, of whom seven were still living at the time of the census, and six of those (aged 19 to 2) were still in the home. The eldest, a boy, worked as a farm laborer on their farm (U.S. Census 1910).

According to the 1900 Census, Joseph B. Merwin was a farmer who lived in downtown New Milford on South Main Street. He was 51 years old and his wife, Mary A. Merwin, was 52 years old. She had borne six children, of whom four were still living at the time of the census, aged 23 through 17, all of whom lived with them (the oldest two were daughters and the youngest two were twins) (U.S. Census 1900). The name J. B. Merwin can be found on the 1874 map, across the road from the southern end of the subject property (Figure 5), and the land records reflect that in 1883, his brother T. Dwight Merwin sold him his half-interest in the 328-acre property of their father, Marcus E. Merwin, on Candlewood Mountain (Butler being the owner of the other half, and also residing there at the time). The New Milford Land Records (Vol. 57, Pg. 144) notes that there was a highway running north and south through the property, and it was abutted as follows:

N James Hine, William Hine, Edward Walden;
E Marshall Marsh, Constantine W. Ferriss (deceased);
S Walter Marsh, Henry Ferriss; and
W Emmet Woodin (deceased), Martha A. Blydenburgh

Dwight Merwin was an attorney and a Yale graduate (Orcutt 1882). According to the 1880 Census, Joseph B. Merwin was a 31-year-old farmer living with his wife Agnes (32), their two small daughters, his elderly aunt, and female servant, and a male farm laborer (U.S. Census 1880). M.E. Merwin was listed on the 1853 map of the town (Figure 3). The land descriptions indicate that the Merwin Family owned at least part of the southern end of the study area, but it is clear from the maps that the center of their farm was across the road from it.

Conclusions

Because the study area is located away from the historic Candlewood Mountain Road, there is only a limited chance of identifying historical features (i.e., house or building foundations) there. Since most of the area was still being farmed as late as 1934, however, old stone walls are likely; in fact, some of them are marked on the maps filed with the Town Clerk.

CHAPTER V

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous cultural resources research completed within the vicinity of the study area in New Milford, Connecticut (Figures 10 through 14). This discussion provides the comparative data necessary for assessing the results of the current Phase IA cultural resources assessment survey, and it insures that the potential impacts to all previously recorded cultural resources located within and adjacent to the proposed access road, facility area, and electric interconnection route are taken into consideration. Specifically, this chapter reviews all previously completed cultural resources surveys conducted within the project region, as well as those archaeological sites, National and State Register of Historic Places properties, and historic standing structures in excess of 50 years in age contained within a 1.6 km (1 mi) area containing the study area.

The discussions 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 the course of this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site, National and State Register of Historic Places, and historic standing structure forms are reflected below.

Previously Completed Cultural Resources Surveys Within the Vicinity of the Study Area

A review of files maintained by the Connecticut State Historic Preservation Office revealed that only a single professional cultural resources survey has been completed within the general project region (CHPC 447; Figure 10). This investigation was completed by Garrow and Associates, Inc., in 1990, and it consisted of a Phase I cultural resources reconnaissance survey of the then-proposed Iroquois Gas Transmission Pipeline Project. This multi-municipality project stretched over 370 miles throughout portions of New York and Connecticut. Examination of the associated pipeline corridor resulted in the identification of 351 archaeological sites, 105 of which were identified in Connecticut. Garrow and Associates, Inc., concluded that 29 of the identified archaeological sites in Connecticut did not retain intact cultural deposits and/or research potential and, therefore, were not eligible for listing on the National Register of Historic Places; these sites required no further examination. The remaining 76 sites contained cultural deposits that may have been significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), and required Phase II testing and evaluation. The Phase II National Register of Historic Places testing and evaluation efforts, as well as some subsequent data recovery projects, were completed during ensuing years; however, none of these efforts were conducted within a 1.6 km (1 mi) area containing the proposed facility, access road, or electric interconnection route. This completed project does, however, demonstrate that the western portion of Connecticut contains and is likely to produce additional important prehistoric and historic archaeological sites.

Previously Recorded Cultural Resources Within the Vicinity of the Study Area

A review of data currently on file at the Connecticut State Historic Preservation Office revealed that while there are no National Register of Historic Places, State Record of Historic Places, or historic standing structures within or immediately adjacent to the access road, facility or electric interconnection route, there are seven previously recorded archaeological sites (96-17, 96-50, 96-51, 96-59, 96-88, 96-89, and 96-90) within a 1.6 km (1 mi) area encompassing the study area (Figures 11 through 14). While none of these sites

are located within the facility area, access road, or electric interconnection route, they provide contextual information regarding archaeological deposits in the region, as well as those that might be expected within the study area. Each of the previously identified archaeological sites is reviewed briefly below.

Site 96-17

Site 96-17 was identified in 1979 by Dr. Fred Warner of Connecticut Archaeological Survey, Inc., (Figure 11). According to the submitted site form, Site 96-17 consists of a Late Archaic/Woodland period camp site that yielded a single radiocarbon date of "1095 BC". Cultural material recovered from the site area included "lithics, steatite, and Vinette pottery." The latter is characteristic of the Early Woodland period of Connecticut prehistory, and the reported radiocarbon date also fits with this interpretation. Excavations at the site also revealed 23 cultural features, 18 of which were classified as hearths. Unfortunately, no additional excavations were undertaken at Site 96-17 prior to the site being destroyed by bulldozing for motel construction. Site 96-17 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) prior to its destruction.

Site 96-50

Site 96-50, the Kimberly Clark Site, also was recorded in 1979 by Dr. Fred Warner of Connecticut Archaeology Survey, Inc., (Figure 11). According to the submitted site form, this site was identified by local artifact collector J. Pawloski, who recovered an unspecified amount of quartz debitage from the site area. No professional survey of the Site 96-50 area was undertaken at the time of identification, but according to the site form, the occupation represented a prehistoric camp from an unknown time period. This site also has been destroyed by construction. Site 96-50 also was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) prior to its destruction.

Site 96-51

Site 96-51 also known as the Nursery Site, was identified in 1979 by Dr. Fred Warner of Connecticut Archaeology Survey, Inc., (Figure 11). According to the submitted site form, this Archaic period camp yielded a single Perkiomen projectile point, 5 side notched Sylvan projectile points, an unspecified number of Levanna projectile points, hammer stones, a hearth, and a large amount of debitage. According to the site form, the Nursery Site "is indicative of a fair-sized hunting camp. Of particular interest is the presence of a large amount of debitage along with hammer stones indicating tool maintenance activities" took place at the site. Site 96-51 is described as in fair condition on the site form, but it has not been assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). This site is located well to the north of the proposed solar facility, access road and electric interconnection route, and Site 96-51 will not be impacted by construction of the Candlewood Solar Photovoltaic Project.

Site 96-59

Site 96-59, also known as the AIAI 7 Site, was recorded by the American Indian Archaeological Institute at an unknown time (Figure 11). Unfortunately, the site form associated with Site 96-59 is blank. As a result, nothing is known about this site other than its location to the north of the proposed solar facility, access road, electric interconnection route, and potential temporary construction parking and material and equipment storage area, and the fact that it represents a prehistoric occupation of some sort. This site also will not be impacted by the proposed solar project.

Site 96-88

Site 96-88, also known as the Rocky CLP I Site, was recorded in 1990 by Garrow and Associates, Inc. (Figure 11). According to the submitted site form, the site area yielded a single chert flake. As a result, it was listed as an isolated find spot that could not be attributed to any specific prehistoric time period or cultural affiliation. It was stated on the site form that the find spot was in good condition at the time of survey, but was determined to be not significant applying the National Register of Historic Places criteria

for evaluation (36 CFR 60.4 [a-d]) due to a lack of research potential. No additional investigation of the site area was recommended and it will not be impacted by the proposed solar project.

Site 96-89

Site 96-89, also known as the Rocky CLP II Site, also was recorded in 1990 by Garrow and Associates, Inc. (Figure 11). According to the submitted site form, this site also yielded a single chert flake. It was listed as an isolated find spot that could not be attributed to any specific prehistoric time period or cultural affiliation. It was stated on the site form that the find spot was in good condition at the time of survey; however, Site 96-89 also was determined to be not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) due to a lack of research potential. No additional investigation of the site area was recommended and it will not be impacted by the proposed solar project.

Site 96-90

Site 96-90, also known as the Rocky River Mill Site, was recorded in 1990 by Garrow and Associates, Inc. (Figure 11). The submitted site form lists this site as the remains of a nineteenth century mill or factory. Cultural material collected from the site area consisted of miscellaneous glass bottles, medicine bottles, glass shards, a machine cut nail, wooden gear and machine parts, and a portion of a reed basket. These items were collected from within and adjacent to a stone foundation. According to the site form, "the foundation appears to be the site of either the 1874 sawmill or the 1874 woolen factory, probably the former. The site would appear to be representative of rural industry in the mid to late nineteenth century." While no National Register of Historic Places eligibility assessment was made for Site 96-90, the site form indicates that "further archaeological and historical documentation work would gather material on the economic and industrial issues occurring in the mid to late nineteenth century in rural Connecticut. This site will not be impacted by the proposed solar project.

Summary and Interpretations

The review of previously completed archaeological research in the vicinity of the proposed study area and the analysis of archaeological sites recorded in the region, indicates that the area possesses a long history of both prehistoric Native American and historic period occupation and use. Prehistoric archaeological sites recorded in the project region appear to date from the Late Archaic period (ca., 6,000 years ago) onward. Moreover, the data noted in the previously identified prehistoric sites indicate that the area was used for a variety of tasks and for variable amounts of time, ranging from task specific and temporary occupations to seasonal camps. This suggests that prehistoric sites may be expected in those undisturbed portions of the project area that are in relatively close proximity to nearby freshwater sources, have level slopes, and that have not been heavily disturbed in the past.

In addition, the historic resources in the area also suggest that the larger study region was settled by Euroamericans early on and that by the mid-nineteenth century both farming and industrial/commercial activities were important to the local economy. However, it does not appear that those previously identified historic sites that remain in the larger project region will be impacted by construction of the proposed solar facility.

CHAPTER VI

METHODS

Introduction

This chapter describes the research design and field methodology used to complete the Phase IB cultural resources reconnaissance survey of the project area in New Milford, Connecticut. It also includes a discussion of the laboratory methods used during the investigation. Finally, the location and point-of-contact for the final facility at which all cultural material, drawings, maps, photographs, and field notes generated during survey will be curated is provided below.

Research Framework

The current Phase IB cultural resources reconnaissance survey was designed to identify all archaeological resources within the moderate/high archaeologically sensitive areas of the proposed project area, and to assess them applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). The undertaking was comprehensive in nature, and project planning considered the results of each previously completed archaeological survey within the project vicinity, the distribution of previously recorded cultural resources located within the project region, and the results of the previously completed Phase IA cultural resources assessment survey. The methods used to complete this investigation were designed to provide coverage of all portions of the moderate/high archaeologically sensitive areas. The fieldwork portion of this undertaking entailed pedestrian survey, photo-documentation, and a subsurface testing regime of those areas previously determined to retain moderate/high archaeological sensitivity (see below).

Following the completion of all background research, and to better control the Phase IB fieldwork effort, the larger project area was divided into four test areas, designated as Areas 1 through 4 (Figure 14). Areas 1 through 3 consisted of sub areas of the proposed facility, while Area 4 included the potential temporary construction parking and material and equipment storage area. These four areas were surveyed using a systematic shovel testing regime. The shovel testing was completed in successive stages. The first stage of testing involved the placement of shovel tests at 30 m (98.4 ft) intervals along survey transects spaced the same distance apart. This initial testing effort was designed to get an overall impression of the soils in the four test areas, including their moisture, stone, and gravel content. When found to contain water or large amounts of rocks/gravel, shovel testing was completed at the 30 m (98.4 ft) interval only. When found to be dry, sandy, and relatively free of large stones, the testing regime was reduced to a test interval of 15 m (49.2 ft) along survey transects spaced 15 m (49.2 ft); this was designated as the "second phase" of shovel testing. Further, in areas where cultural materials were identified or were thought to have a very high probability of being identified, the shovel testing interval was reduced to 7.5 m (24.6 ft) along survey transects spaced 7.5 m (24.6 ft) and even further to 3.75 m (12 ft) in the area of Locus 2 (see below). This staged approach to shovel testing allowed for the examination of the entirety of the moderate/high probability areas, with a more targeted approach around archaeological find spots.

During survey, each shovel test measured 50 cm (19.7 in) in size and each was excavated until glacially derived C-Horizon soils were identified or until immovable objects (e.g., boulders) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within identified strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth; extremely wet soils were hand-sifted, troweled, and examined visually for cultural material. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled immediately upon completion of the archaeological recordation process.

Laboratory Analysis

Laboratory analysis of recovered cultural material, which consisted of prehistoric lithic artifacts, was completed following established archaeological protocols. To begin the laboratory analysis process, field specimen bag proveniences first were crosschecked against the field notes and the specimen inventories for accuracy and completeness. Following this quality-control process, all recovered material was washed by hand, air-dried, and sorted into basic material categories.

The nature and structure of the laboratory analysis was determined by the goals of the project. The artifact analysis consisted of making and recording a series of observations for each recovered specimen. The observations were chosen to provide the most significant information about each specimen. A Microsoft database was employed to store, organize, and manipulate the data generated by the analytical process. The database was designed specifically for the analysis of the recovered historic artifacts. The analytical protocols applied to the recovered artifacts are discussed in detail below.

Prehistoric Lithic Analysis

The lithic analysis protocol used during completion of this project was a “technological” or “functional” one designed to identify prehistoric reduction trajectories and lithic industries. The protocol therefore focused on recording technological characteristics of the recovered lithic artifacts. The lithic artifact database was organized by lithic material group, type, and subtype. The first level described the raw material type of the artifact. Lithic materials were identified utilizing recognized geological descriptions and terminology, and were placed into distinct categories based on three factors: texture, color, and translucence. The second analysis level, type, was used to define the general class (e.g., unmodified flake, core, or perform) of lithic artifact, while the last level, subtype, was employed to specify morphological attributes (e.g., primary cortex, extensively reduced, etc.).

Historic Cultural Material Analysis

The analysis of the historic/modern cultural material was organized by class, functional group, type, and subtype. The first level, class, represented the material category, e.g., ceramic, glass, metal. The second level, functional group, e.g., architecture, kitchen, or personal, was based on classifications found in standard laboratory reference materials. The third and fourth levels, type and subtype, described the temporally and/or functionally diagnostic artifact attributes. The identification of artifacts was aided by consulting standard reference works.

Curation

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

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CHAPTER VII

RESULTS OF THE INVESTIGATION

Introduction

This chapter presents the results of the Phase IB cultural resources reconnaissance survey of the proposed Candlewood Solar Project in New Milford, Connecticut (Figure 1). The project consists of the solar facility, electric interconnection route, access road, and potential temporary construction parking and material and equipment storage area. As discussed in the previously submitted Phase IA cultural resources assessment survey prepared by Heritage, the access road and electric interconnection route contain soils not amenable to either prehistoric or historic occupations, steep slopes, disturbed areas, and/or wetlands; thus, these areas were deemed to possess no/low archaeological potential and were not subjected to subsurface testing as a part of the current Phase IB cultural resources survey. Instead, the current field effort focused on those portions of the proposed facility that contained low to moderate slopes, proximity to water, and/or well drained soils, as well as the potential temporary construction parking and material and equipment storage area. These two areas encompassed approximately 40 acres of land in total. As mentioned in Chapter VI of this document, the project area was divided into four separate areas to facilitate better control over the Phase IB survey process (Figure 14). A total of 446 of 446 (100 percent) planned shovel tests were excavated in throughout the four survey areas. This resulted in the identification of eight prehistoric and historic period cultural resources loci, two of which will be given archaeological site numbers once they are officially assigned by the Connecticut State Historic Preservation Office. Phase IB cultural resources reconnaissance survey of the four test areas and identified cultural resources loci are discussed below.

Results of Phase IB Cultural Resources Reconnaissance Survey of Area 1

Area 1 is situated in the northernmost portion of the proposed project parcel associated with the solar facility (Figure 14). It is situated at approximate elevations ranging from 220 to 280 m (720 to 920 ft) NGVD. The area is heavily wooded with relatively young trees consisting mainly of oak, maple and beech. Also observed were Iron Wood, and Moose Maple. Natural outcrops of stone are visible in various places throughout the area, as are several stonewall segments. The central portion of Area 1 is generally level but slopes downward to the west and east. The northernmost area of Area 1 slopes steeply upward toward the top of Candlewood Mountain. Phase IB shovel testing of Area 1 was focused on the flat, well drained areas. Soils in Area 1 are described as Paxton and Montauk fine sandy loams with a portion of the northeast area described as Rock Outcrop-Hollis complex with 45 to 60 percent slopes. Phase IB survey Area 1 consisted of the placement of 14 linear survey transects that trended from north to south. Shovel tests along the survey transects were initially excavated at 30 m (98.4 ft) intervals to record preliminary data on soil and drainage characteristics. Those areas that retained sandy, well drained soils were then tested at 15 m (49.2 m) and 7.5 m (24.6 ft) intervals in areas that were particularly flat and well drained, or where archaeological materials were identified. Stonewalls present in the area were used as reference points when laying out survey transects. In addition, “judgmental” shovel tests were placed near the northern edge of the project area. A total of 78 of 78 (100 percent) planned shovel tests were excavated throughout the testable portions of Area 1 (Figure 15).

A typical soil profile for shovel tests excavated within Area 1 exhibited three soil strata in profile and extended to a depth of 55 cmbs (22 inbs). Stratum I was described as a layer of brown (10YR 4/3) silty sand that extended from 0 to 29 cmbs (0 to 11 inbs). Stratum II, the B-horizon (i.e., subsoil), was encountered between 29 and 50 cmbs (11 and 20 inbs), and it consisted of a deposit of dark yellow brown (10YR 4/6) silty sand. Finally, the glacially derived C-Horizon was encountered at 50 cmbs (19.7 inbs) below the surface and consisted of a layer of olive brown (2.5Y 4/4) medium-grained sand with gravel that was excavated to a depth of 55 cmbs (22 inbs). Phase IB cultural resources reconnaissance survey of Area 1 resulted in the identification of a single cultural resources locus. This area was designated as Locus 1 and its described in detail below.

Locus 1

As mentioned above, Locus 1 was identified during Phase IB survey of Area 1. It is situated in the northeastern portion of Area 1 at an approximate elevation of 252.9 m (830 ft) NGVD. At the time of survey, it was encompassed within an area of secondary forest (Figures 16 and 17). Phase IB survey of this area included the excavation of 28 of 28 (100 percent) planned survey and delineation shovel tests. The initial survey shovel tests were excavated at 15 m (49.2 ft) intervals, and after the identification of Locus 1, additional delineation shovel tests were excavated at 7.5 m (24.6 ft) intervals around the locations where artifacts were recovered. This was done in attempt to identify the boundaries of Locus 1, as well as to collect a larger sample of artifacts from the area. This effort resulted in the collection of six prehistoric and historic period artifacts (see Table 1 below). The prehistoric cultural material was identified as 2 chert secondary thinning flakes and 2 quartz secondary thinning flakes; all four of these artifacts were recovered from the A-Horizon, which consisted of a historic plowzone deposits. The historic period cultural material recovered from Locus 1 included 1 blue hand painted pearlware sherd and a single unidentifiable nail. These two artifacts also were collected from the plowzone.

A typical shovel test excavated within the Locus 1 area exhibited three soil strata in profile and extended to a depth of 60 cmbs (24 inbs). Stratum I was described as a layer of brown (10YR 4/3) silty sand that extended from 0 to 32 cmbs (0 to 12.8 inbs). It was underlain by Stratum II, the subsoil, which consisted of a deposit of dark yellow brown (10YR 4/6) silty sand that extended from 32 to 50 cmbs (12.8 to 19.7 inbs). Finally, the glacially derived C-Horizon was encountered at 50 cmbs (19.7 inbs) below the surface; it consisted of a layer of olive brown (2.5Y 4/4) medium-grained sand with gravel that was excavated to a maximum depth of 60 cmbs (24 inbs).

Table 1. Cultural materials recovered from Locus 1.

Provenience	Depth (cmbs)	Stratum	Material	Artifact	Count	Comments
TR-3 ST 1	0-10	I (A-horizon)	Ceramic	Pearlware	1	Blue, Hand-Painted
TR-3 ST 1	0-10	I (A-horizon)	Metal	Nail	1	Unidentifiable
TR-3 ST 1	20-30	I (A-horizon)	Quartz	Lithic flake	1	
TR-3 ST 2	10-20	I (A-horizon)	Chert	Lithic flake	1	
TR-3 ST 2VW	10-20	I (A-horizon)	Quartz	Lithic flake	1	
TR-3 ST 1E	0-10	I (A-horizon)	Chert	Lithic flake	1	

Despite the field effort undertaken within Locus 1, it was determined that the prehistoric period component situated in this area contained few artifacts and likely represented a very short-term occupation, likely a single use for the purposes of stone tool re-sharpening. Due to the low density of cultural materials encountered, the absence of cultural features, and the lack of temporally/functionally diagnostic materials, it was determined that the prehistoric component of Locus 1 is not eligible for listing on National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). In addition, while the pearlware ceramic sherd recovered from the historic period component of Locus 1 dates from ca. 1780 to 1820, the lack of a substantial amounts of artifacts from the area, as well as the absence of any above-ground cultural features (e.g., stone foundations) suggests that the historic period

component of Locus 1 represents a small amount of field scatter. Due to the paucity of historic artifacts recovered, the absence of cultural features, and the overall lack of research potential, the historic period component of Locus 1 also is not eligible for listing on National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of either Locus 1 or Area 1 is recommended prior to construction of the proposed solar project.

Results of Phase IB Cultural Resources Reconnaissance Survey of Area 2

Area 2 is located in the central portion of the proposed solar facility area at approximate elevations ranging from 220 to 250 m (720 to 810 ft) NGVD (Figure 14). Like Area 1 to the north, Area 2 was wooded at the time of survey and contained stone walls that extend from north to south and east to west. The walls appeared to form field enclosures most likely used for pasturage in the past. The western portion of Area 2 slopes downward towards the west, is poorly drained, and is very rocky. The easternmost portion of Area 2 also is poorly drained and very rocky, with rock ledge visible on the surface. Shovel testing associated with Phase IB cultural resources survey of Area 2 was concentrated along the central portion of the area. This part of Area 2 consists of a flat, well-drained terrace that is covered with deciduous trees consisting predominantly of oak, maple, beech and birch. Soils in this area are described as Paxton and Montauk fine sandy loams.

A typical shovel test excavated within Area 2 exhibited three soil strata in profile and extended to a depth of 66 cmbs (26.4 inbs). Stratum I, A-Horizon, reached from 0 to 28 cmbs (0 to 11 inbs) and was described as a layer of brown (10YR 4/3) silty sand. The B-horizon (i.e., the subsoil) was encountered between 28 and 56 cmbs (11 and 22 inbs) and it was classified as a deposit of dark yellow brown (10YR 4/6) silty sand. Finally, the glacially derived C-Horizon was encountered at 56 cmbs (22 inbs); it consisted of a layer of olive brown (2.5Y 4/4) medium grained sand with gravel that was excavated to a terminal depth of 66 cmbs (26.4 inbs).

A total of 104 of 104 (100 percent) planned shovel tests were excavated throughout the gently sloping portions of Area 2. Initially, shovel tests along survey transects were established at 30 m (98.4 ft) intervals along survey transects spaced 30 m (100 ft) apart. This was done to attain maximum coverage across the landscape, as well as to collect data regarding soil types and drainage characteristics. The 30 m (100 ft) interval grid was then reduced to 15 m (50 ft) and 7.5 m (25 ft) intervals in areas that were particularly flat and well drained or where cultural materials were encountered. Phase IB cultural resources reconnaissance survey of Area 2 resulted in the identification of two cultural resources loci (Locus 2 and 7). They are discussed below.

Locus 2

Locus 2 was identified during Phase IB survey of the north-central portion of Area 2, and it is situated at an approximate elevation of 243.8 m (800 ft) NGVD. At the time of survey, it was encompassed within an area of secondary forest (Figures 18 and 19). Examination of the Locus 2 area resulted in the recovery of a single Bifurcate projectile point from Shovel Test 2 along Transect 16. This artifact was recovered from the intact subsoil at a depth of 10 to 20 cmbs (3.9 to 7.9 inbs); it is an Early Archaic period (ca., 9,000 to 8,000 years ago) artifact type that is rarely identified in Connecticut. It measured roughly 5 cm (2 in) in length by approximately 3 cm (1.3 in) in width at its distinctive bifurcated base, which has sustained damage in the past. The projectile is of a bluish-gray color and the material appears to be Normanskill Chert, which originates in eastern New York State. In an effort to identify any additional artifacts or cultural features associated with the projectile point, Heritage excavated 27 of 27 (100 percent) additional survey and delineation shovel tests throughout the Locus 2 area varying from 15 m (24.6 ft) intervals down to 3.75 m (11.9 ft) away from the original find spot.

A typical shovel test excavated within the Locus 2 area exhibited three soil strata in profile and extended to a maximum depth of 60 cmbs (24 inbs). Stratum I, A-Horizon, extended from 0 to 25 cmbs (0 to 10 inbs) and was described as a layer of brown (10YR 4/3) silty sand. The B-horizon (i.e., the subsoil) was

encountered between 25 and 55 cmbs (10 and 22 inbs); it was classified as a deposit of dark yellow brown (10YR 4/6) silty sand. Finally, the glacially derived C-Horizon was encountered at 55 cmbs (22 inbs) below the surface; it consisted of a layer of olive brown (2.5Y 4/4) medium grained sand with gravel that was excavated to a terminal depth of 60 cmbs (24 inbs).

Despite the intensive field effort undertaken throughout the Locus 2 area, no additional artifacts or cultural features were found in association with the above-referenced Bifurcate projectile point. While this artifact is rare and represents a relatively unknown period of Connecticut's prehistoric archaeological record, it alone indicates very little about the use of the Locus 2 area other than the item was likely lost during a hunting episode. There are no other artifacts or cultural features within Locus 2 to suggest that this area was occupied for other than a very short period of time. As a result, Locus 2 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 2 is recommended prior to construction of the proposed solar facility. Locus 2 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

Locus 7

As mentioned above, Locus 7 was identified during Phase IB survey of Area 2. It is situated in the northeastern portion of Area 2 at an approximate elevation of 243.8 m (800 ft) NGVD. At the time of survey, it was encompassed within an area of secondary forest (Figures 18 and 20). The Locus 7 area is situated along a narrow strip located on the eastern edge of the project area. The area is bound to the west by a dirt path that crosses Area 2 and to the east by a rocky steep drop towards a wetland associated with the Rocky River. The area measures roughly 45 m (147.6 ft) in length from north to south and 20 m (65.6 ft) from east to west. The area is relatively rocky with stone ledge visible across the surface. This area was subjected to Phase IB survey due to its close proximity to wetlands and relatively level topography. During survey, 13 of 13 planned (100 percent) shovel tests were excavated throughout the Locus 7 area. Initially, a single survey transect was placed in the area that extended from north to south and contained shovel tests at 15 m (49.2 ft) intervals. Once cultural materials were encountered, shovel test intervals were reduced to 7.5 m (24.6 ft) and then again to 3.75 m (12.5 ft); these were placed judgmentally due to the rocky nature of the area, which precluded systematic shovel testing along multiple survey transects.

A typical shovel test excavated within the confines of Locus 7 exhibited three soil strata in profile and extended to a maximum depth of 55 cmbs (22 inbs). Stratum I, A-Horizon, extended from 0 to 10 cmbs (0 to 3.9 inbs) and it was described as a layer of brown (10YR 4/3) silty sand and organic material that composed a duff/root mat deposit. The B-horizon (i.e., the subsoil) was encountered between 10 and 45 cmbs (3.9 and 18 inbs) and it was classified as a deposit of dark yellow brown (10YR 4/6) silty sand. Finally, the glacially derived C-Horizon reached from 45 to 55 cmbs (18 to 22 inbs); it consisted of a layer of olive brown (2.5Y 4/4) medium grained sand with gravel.

Archaeological examination of Locus 7 resulted in the identification of lithic materials in 5 of 13 (38 percent) of the excavated shovel tests. The recovered artifacts consisted of flakes and cores consistent with stone tool manufacturing. In addition, two thumb-nail sized unifacial scraping tools were recovered from Locus 7. While the artifacts encountered cannot be directly attributed to a particular prehistoric time period, it is possible that the lithic assemblage may represent what has been described as an Early Archaic quartz cobble lithic industry that is represented by steep-edged unifacial scrapers and a distinct lack of projectile points (Robinson and Petersen 1993).

Table 2. Cultural materials recovered from Locus 7.

Provenience	Depth	Stratum	Material	Artifact	Count	Comments
TR-66 ST 3	0-10 cmbs	II (B-horizon)	Quartz	Lithic edge tool	1	
TR-66 ST 3	30-40 cmbs	II (B-horizon)	Quartz	Lithic shatter	1	
TR-66 ST 4	10-20 cmbs	II (B-horizon)	Quartz	Lithic flake	1	
TR-66 ST 8	10-20 cmbs	II (B-horizon)	Quartz	Lithic tool	1	Unifacial scraper
TR-66 ST 9	20-30 cmbs	II (B-horizon)	Quartz	Lithic core fragment	1	
TR-66 ST 10	10-20 cmbs	II (B-horizon)	Quartz	Lithic core fragment	1	
TR-66 ST 10	10-20 cmbs	II (B-horizon)	Quartz	Lithic flake	1	
TR-66 ST 10	20-30 cmbs	II (B-horizon)	Quartz	Lithic tool	1	Unifacial scraper
TR-66 ST 13	10-20 cmbs	II (B-horizon)	Quartz	Lithic flake	1	

Although the age and cultural affiliation of Locus 7 is not certain, it is believed that it represents a lithic work shop area where quartz reduction and tool manufacturing took place. Due to the presence of artifacts recovered from intact subsoil context in multiple shovel tests, Locus 7 is potentially significant applying Criterion D of the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), which states that a resource “has yielded or may be likely to yield, information important in history or prehistory.” It is recommended that the project sponsor develop an avoidance plan for this area in consultation with the Connecticut State Historic Preservation Office so that Locus 7 is not adversely affected by the proposed construction. If this is not feasible, then Phase II National Register of Historic Places testing and evaluation of Locus 7 should be completed prior to construction of the proposed solar facility. Locus 7 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

Results of Phase IB Cultural Resources Reconnaissance Survey of Area 3

Area 3 is located at the southern end of the proposed solar facility area at approximate elevations ranging from 220 to 250 m (720 to 810 ft) NGVD. It consists of three open fields, each bound by stone walls, as well as some smaller intervening wooded areas (Figures 14 and 23). The northwestern field within Area 3 is currently used as a hay field and is roughly 140 x 150 meters (490 x 500 ft) in size. South of the hay field is a wooded area that measures approximately 70 x 100 meters (230 x 330 ft) in area and contains mostly deciduous trees. The area is very rocky and rock ledge/rock piles are visible throughout. South of the wooded area is another field that measures roughly 120 x 65 meters (390 x 213 ft) in size; it extends to the southernmost edge of the project area. The third and largest of the fields is located on the southeastern edge of the project area; it measures approximately 350 x 160 meters (1150 x 525 ft) in area and is currently used as pasturage.

During Phase IB survey, 246 of 246 (100 percent) planned shovel tests were excavated in throughout Area 3. Soils in Area 3 are described as Paxton and Montauk fine sandy loams. A typical soil profile in this area extended to a depth of 65 cmbs (26 inbs) and contained three soil strata in profile. Stratum I, the plowzone, extended from 0 to 28 cmbs (0 to 11 inbs) and consisted of a layer of very dark brown (7.5YR 5/2) silty loam. Stratum II, the B-horizon (subsoil), was encountered between 28 and 52 cmbs (11 to 19.7 inbs), and consisted of a deposit of dark yellow brown (10YR 4/6) medium-grained sand and silt. Finally, the glacially derived C-Horizon was encountered at 52 cmbs (20 inbs) and it consisted of a layer of olive brown (2.5Y 4/3) silty coarse sand with a moderate amount of gravel; it was excavated to a terminal depth of 65 cmbs (26 inbs). Phase IB cultural resources survey of Area 3 resulted in the identification of four cultural resources loci designated as Locus 3 through Locus 6. Each of these areas are discussed in turn below.

Locus 3

Locus 3 was identified in the northeastern portion of Area 3 at an approximate elevation of 240.7 m (790 ft) NGVD. At the time of survey, this area was characterized by a large open field covered with grass (Figures 22 and 23). Examination of the Locus 3 area resulted in the recovery of a single prehistoric secondary

thinning flake fashioned from a sedimentary stone. This artifact was recovered from the plowzone at a depth of 20 to 30 cmbs (7.9 to 11.9 inbs). Upon discovery of the lithic flake, Heritage completed four additional shovel tests at 7.5 m (24.6 ft) intervals to the north, east, south, and west of the original find spot. Although additional delineation shovel tests were excavated within the Locus 3 area, no additional cultural material or cultural features were identified.

A typical shovel test excavated within the Locus 3 area extended to a depth of 60 cmbs (24 inbs) and contained three soil strata in profile. Stratum I, the plowzone, extended from 0 to 25 cmbs (0 to 10 inbs) and consisted of a layer of very dark brown (7.5YR 5/2) silty loam. Stratum II, the B-horizon (subsoil), was encountered between 25 and 50 cmbs (10 and 19.7 inbs) and consisted of a deposit of dark yellow brown (10YR 4/6) medium-grained sand and silt. Finally, the glacially derived C-Horizon was revealed at 50 cmbs (19.7 inbs) and it consisted of a layer of olive brown (2.5Y 4/3) silty coarse sand with a moderate amount of gravel; it was excavated to a terminal depth of 60 cmbs (24 inbs).

Despite the field effort undertaken throughout the Locus 3 area, no additional artifacts or cultural features were found in association with the above-referenced lithic flake. As a result, it was determined that Locus 3 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 3 is recommended prior to construction of the proposed solar array facility.

Locus 4

Locus 4 was identified in the northwestern portion of Area 3 at an approximate elevation of 246.9 m (790 ft) NGVD. At the time of survey, this area, like Locus 3, was situated within a large open field covered with grass (Figures 22 and 24). Phase IB survey of the Locus 4 area resulted in the recovery of a single chert thinning flake and 1 large piece of chert shatter. These artifacts were recovered from the plowzone at a depth of 10 to 20 cmbs (3.9 to 7.9 inbs). Heritage completed additional shovel tests at 7.5 m (24.6 ft) intervals to the north, east, south, and west of the original find spot. Although additional delineation shovel tests were excavated throughout the Locus 4 area, no additional cultural materials or features were identified.

A typical shovel test excavated within the Locus 4 area extended to a depth of 70 cmbs (28 inbs) and contained three soil strata in profile. Stratum I, the plowzone, extended from 0 to 30 cmbs (0 to 16 inbs) and consisted of a layer of very dark brown (7.5YR 5/3) silty loam. Stratum II, the B-horizon (subsoil), was encountered between 30 and 60 cmbs (12 and 18.2 inbs) and consisted of a deposit of dark yellow brown (10YR 4/6) medium-grained sand and silt. Finally, the glacially derived C-Horizon was encountered at 60 cmbs (18.2 inbs) and it consisted of a layer of olive brown (2.5Y 4/3) silty coarse sand with a moderate amount of gravel; it was excavated to a terminal depth of 70 cmbs (28 inbs).

Despite the field effort undertaken throughout the Locus 4 area, no additional artifacts or cultural features were found in association with the above-referenced lithic flake. As a result, it was determined that Locus 4 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 4 is recommended prior to construction of the proposed solar array facility.

Locus 5

Locus 5 also was identified in the northwestern portion of Area 3; it was recorded at an approximate elevation of 246.9 m (790 ft) NGVD. At the time of survey, this area was covered by mixed deciduous forest (Figures 22 and 25). Phase IB survey of the Locus 5 area resulted in the recovery of 3 plain whiteware sherds, all of which were collected from the base of the plowzone at 20 to 30 cmbs (7.9 to 11.9 inbs). Heritage excavated additional shovel tests at 7.5 m (24.6 ft) intervals to the north, east, south, and west of the original find spot at both 15 and 30 m (49.2 and 98.4 ft) intervals. Although additional delineation

shovel tests were excavated within the Locus 5 area, no additional cultural materials or evidence of features was recovered.

A typical shovel test excavated within the Locus 5 area extended to a depth of 50 cmbs (19.7 inbs) and contained three soil strata in profile. Stratum I, the plowzone, extended from 0 to 30 cmbs (0 to 16 inbs) and consisted of a layer of very dark brown (7.5YR 5/3) silty loam. Stratum II, the B-horizon (subsoil), was encountered between 30 and 45 cmbs (16 and 18 inbs) and consisted of a deposit of dark yellow brown (10YR 4/6) medium-grained sand and silt. Finally, the glacially derived C-Horizon was encountered at 45 cmbs (18 inbs) and it consisted of a layer of olive brown (2.5Y 4/3) silty coarse sand with a moderate amount of gravel that reached to a terminal depth of 50 cmbs (19.7 inbs).

Despite the delineation effort undertaken throughout the Locus 5 area, no additional artifacts or evidence of historic architectural remains (e.g., stone foundations, wells, etc.) were found in association with the above-referenced whiteware sherds. Thus, it was determined that Locus 5 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of this area recommended prior to construction of the proposed solar array facility.

Locus 6

Locus 6 was identified in the south-central portion of Area 3 at an approximate elevation of 243.8 m (800 ft) NGVD. At the time of survey, this area was situated within a large horse pasture covered with grass (Figures 22 and 26). Phase IB survey of the Locus 6 area resulted in the recovery of 3 clear lead glazed red earthenware body sherds and a single clear lead glazed red earthenware base sherd. All of these artifacts were recovered from the same shovel test at a depth of 10 to 20 cmbs (3.9 to 7.9 inbs). Upon discovery of the ceramic sherds flakes, Heritage completed additional shovel tests at 15 m (49.2 ft) intervals in the cardinal directions of the original find spot. Although additional delineation shovel tests were excavated within the Locus 6 area, no other cultural material or evidence of cultural of features was identified.

A typical shovel test excavated within the Locus 6 area extended to a depth of 45 cmbs (18 inbs) and contained three soil strata in profile. Stratum I, the plowzone, extended from 0 to 20 cmbs (0 to 19.7 inbs) and consisted of a layer of dark brown (10YR 3/3) silty loam. Stratum II, the B-horizon (subsoil), was encountered between 20 and 35 cmbs (7.9 and 14 inbs) and it consisted of a deposit of dark yellow brown (10YR 4/6) medium-grained sand and silt. Finally, the glacially derived C-Horizon was encountered at 35 cmbs (14 inbs) and it consisted of a layer of olive brown (2.5Y 4/3) silty coarse sand with a moderate amount of gravel; it was excavated to a terminal depth of 45 cmbs (18 inbs).

Despite the field effort undertaken throughout the Locus 6 area, no additional historic artifacts or buried architectural features were found in association with the above-referenced red earthenware sherds. As a result, it was determined that Locus 6 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 6 is recommended prior to construction of the proposed solar array facility.

Results of Phase IB Cultural Resources Reconnaissance Survey of Area 4

Area 4, which will potentially be used during construction for parking and material and equipment storage, is in the southwestern portion of the project area at approximate elevations ranging from 213 to 216 m (700 to 710 ft) NGVD (Figure 14). The area consists of a large open field currently used as pasturage. The field is approximately 210 m (690 ft) in length by 90 m (295 ft) in width and is bordered by Candlewood Mountain Road to the west and a drainage ditch to the east. The northern edge of the field runs parallel to the existing access road, while the western and southern edges of the field are bordered with stone walls. This area is characterized by low slopes and sandy, well drained soils. During Phase IB

survey, three survey transects were placed 30 m (98.4 ft) apart across the width of the field. Each transect contained six shovel tests spaced 30 m (98.4 ft) apart, for a total of 18 shovel tests (Figure 27). Shovel tests were positioned in this fashion to obtain data suitable to interpret the local stratigraphy and to get a better sense as to whether this area contained intact archaeological deposits

A typical shovel test excavated within Area 4 exhibited two soil strata in profile and reached to a maximum excavated depth of 40 cmbs (16 inbs). Stratum I, the plowzone, extended from 0 to 26 cmbs (0 to 10.4 inbs) and was described as a deposit of very dark brown (10YR 3/2) fine sandy loam. When present, a truncated B-horizon (subsoil) layer was encountered between 26 and 28 cmbs (10.4 and 11.2 inbs); and it consisted of a very thin layer of yellowish brown (10YR 5/4) silty sand mottled with very dark brown (10YR 3/2) fine sandy loam. The glacially derived C-Horizon was encountered between 26 to 28 cmbs (10.4 to 11.2 inbs) and reached to 50 cmbs (19.7 inbs) depending upon shovel test location; and it consisted of deposit of light olive brown (2.5UY 5/4) compact fine sand and silt. Excavation of the shovel tests within Area 4 made it clear that the existing plowzone deposit is resting immediately atop the glacially derived C-Horizon for the most part, indicating that no substantial amounts of intact soils remain in the area. However, shovel testing of Area 4 resulted in the identification of a single historic period locus. This area was designated as Locus 8, and it is discussed below.

Locus 8

Locus 8 was identified in the west-central portion of Area 4 at an approximate elevation of 216.4 m (710 ft) NGVD. At the time of survey, it was encompassed by a large horse pasture (Figures 27 and 28). Examination of the Locus 8 area resulted in the recovery of a single unidentified nail. This artifact was recovered from the plowzone at a depth of 10 to 20 cmbs (3.9 to 7.9 inbs). Upon discovery of the nail, Heritage completed three additional shovel tests at 7.5 m (24.6 ft) intervals to the north, east, and south of the original find spot. The western shovel test could not be excavated because it fell within an area containing a stonewall. Although additional delineation shovel tests were excavated within the Locus 8 area, no additional cultural materials or features were identified.

A typical shovel test excavated within Locus 8 exhibited two soil strata in profile and reached to a maximum excavated depth of 38 cmbs (15.2 inbs). Stratum I, the plowzone deposit, extended from 0 to 28 cmbs (0 to 11.2 inbs) and was described as a deposit of very dark brown (10YR 3/2) fine sandy loam. This plowzone deposit rested directly on top of the glacially derived C-Horizon, with no intervening intact subsoil layer. The C-Horizon was encountered between 28 cmbs (11.2 inbs) and extended to 38 cmbs (15.2 inbs); it was described as a deposit of light olive brown (2.5UY 5/4) compact fine sand and silt.

Despite the field effort undertaken throughout the Locus 8 area, no additional artifacts or cultural features were found in association with the above-referenced nail. As a result, it was determined that Locus 8 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 8 is recommended prior to usage of this area for temporary parking and material and equipment storage during construction.

CHAPTER VIII

SUMMARY AND MANAGEMENT RECOMMENDATIONS

This report presents the results of a Phase IB cultural resources reconnaissance survey of the moderate/high archaeologically sensitive areas associated with the proposed Candlewood Solar Project in New Milford, Connecticut. Heritage completed this project using a combination of pedestrian survey and shovel testing. Examination of the moderate/high archaeologically sensitive areas associated with the proposed solar facility and the potential temporary construction parking and material and equipment storage area resulted in the identification of eight cultural resources loci (Locus 1 through Locus 8). Locus 1, 3, and 4, all of which were identified within the proposed solar facility area, contained small prehistoric flake scatters that likely represent single use episodes of the area for stone tool re-sharpening. Despite delineation testing, all three of these cultural resources loci failed to produce additional artifacts or evidence of cultural features. As a result, it was determined that the prehistoric occupations associated with Loci 1, 3, and 4 lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of these loci is recommended prior to construction of the proposed solar facility.

Phase IB cultural resources reconnaissance survey also resulted in the identification of historic period cultural materials representative of field scatter within Loci 1, 5, 6, and 8. Delineation shovel testing of these four areas also failed to identify significant amounts of cultural material or evidence of cultural features. Thus, they too lack research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Loci 1, 5, 6, and 8 is recommended prior to construction of the proposed solar facility or usage of the temporary construction parking and material and equipment storage area.

Phase IB cultural resources survey of Locus 2 resulted in the identification of a single Early Archaic Period Bifurcate projectile point. Despite close intervals delineation testing, no additional cultural material or evidence of cultural features was identified within Locus 2. Consequently, Locus 2 lacks research potential and the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Locus 2 is recommended prior to construction of the proposed solar facility. Locus 2 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

Finally, archaeological examination of the proposed solar facility also resulted in the identification of Locus 7, a prehistoric lithic workshop. This area contained multiple shovel tests that produced prehistoric lithic material from undisturbed subsoil contexts. It was assessed as potentially significant applying Criterion D of the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), which states that a resource "has yielded or may be likely to yield, information important in history or prehistory." It is recommended that the project sponsor develop an avoidance plan for this area in consultation with the Connecticut State Historic Preservation Office so that Locus 7 is not adversely affected by the proposed construction. If this is not feasible, then Phase II National Register of Historic Places testing and evaluation of Locus 7 should be completed prior to construction of the proposed solar

facility. Locus 7 will be given an official State of Connecticut site number once it is assigned by the Connecticut State Historic Preservation Office.

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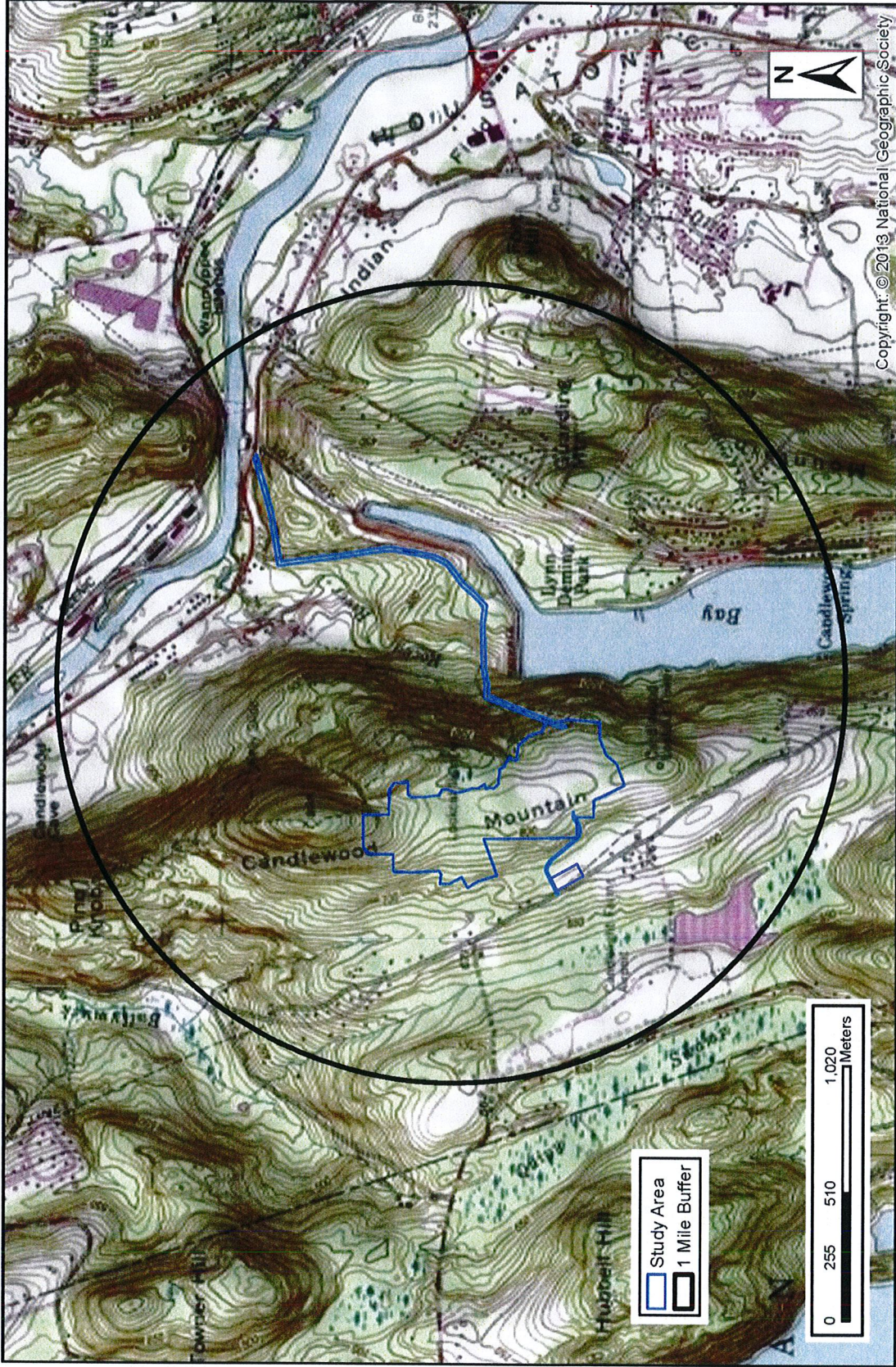


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

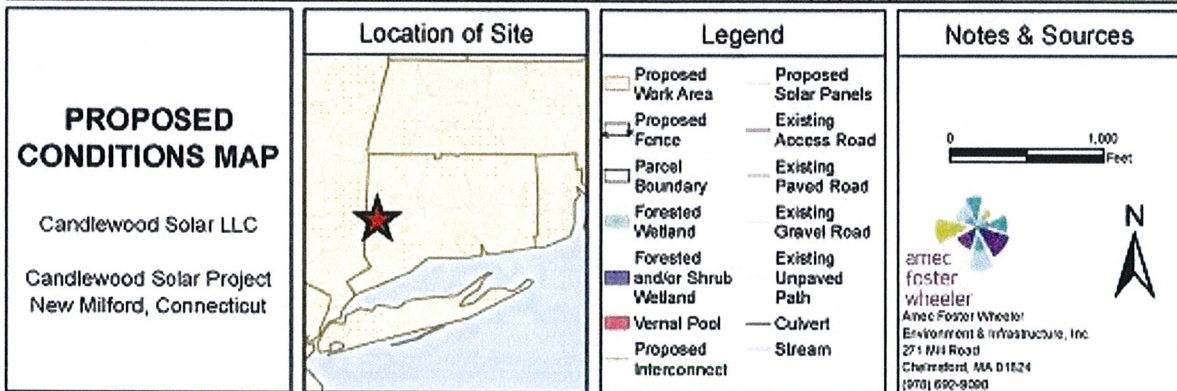
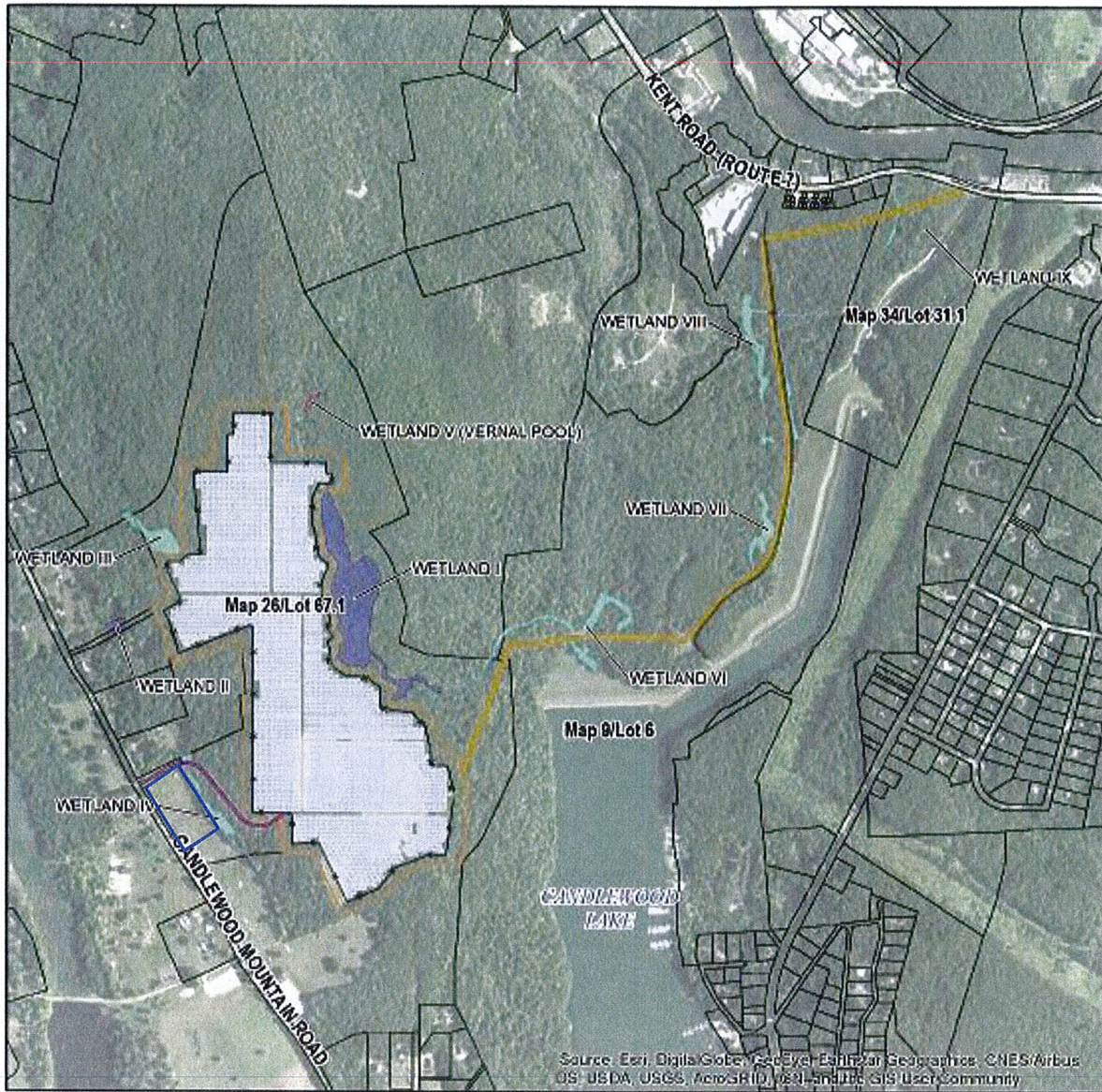


Figure 2. Construction plan for the proposed solar facility in New Milford, Connecticut.



Figure 4. Excerpt from an 1859 map depicting the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

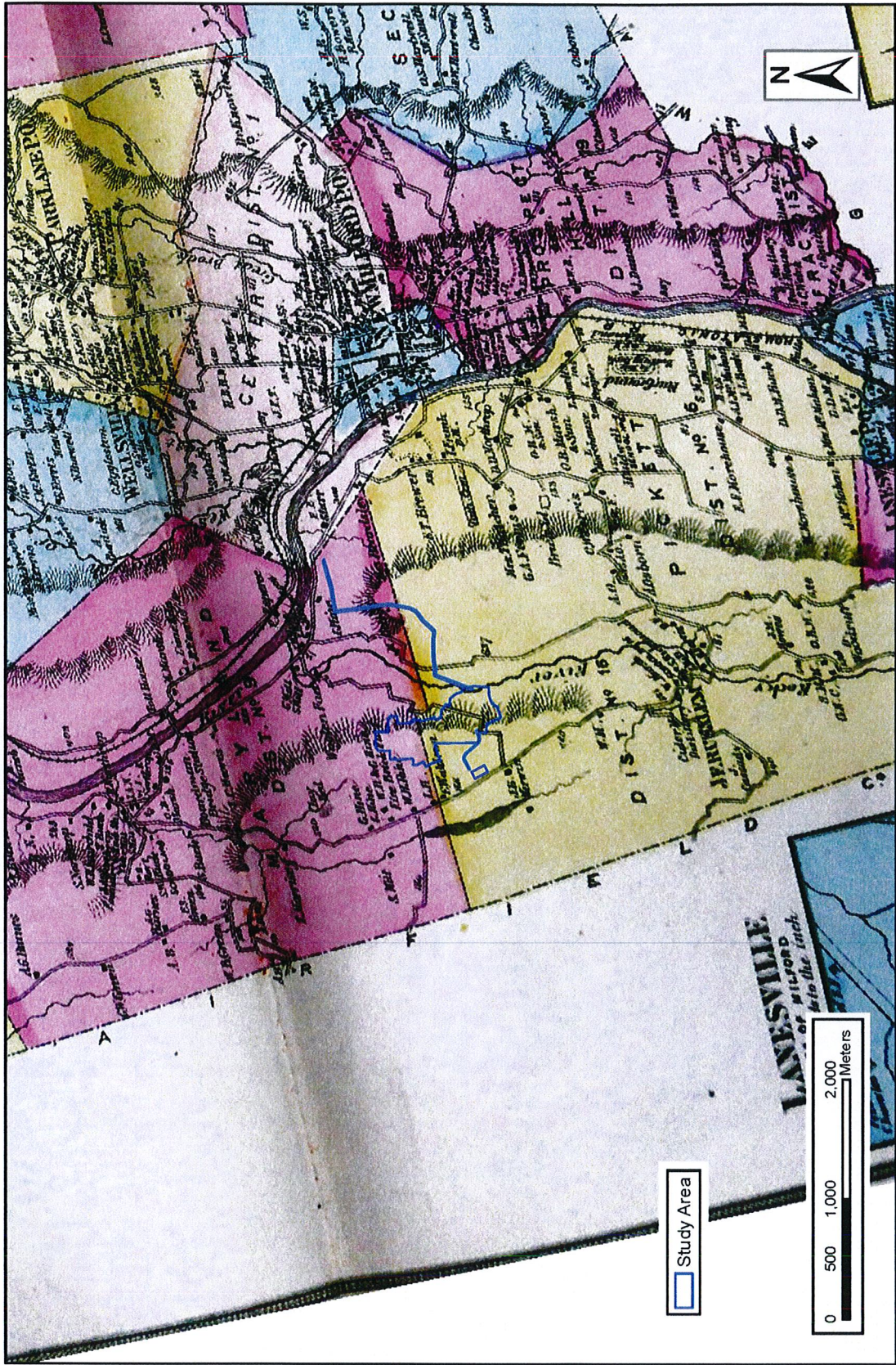


Figure 5. Excerpt from an 1874 map depicting the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

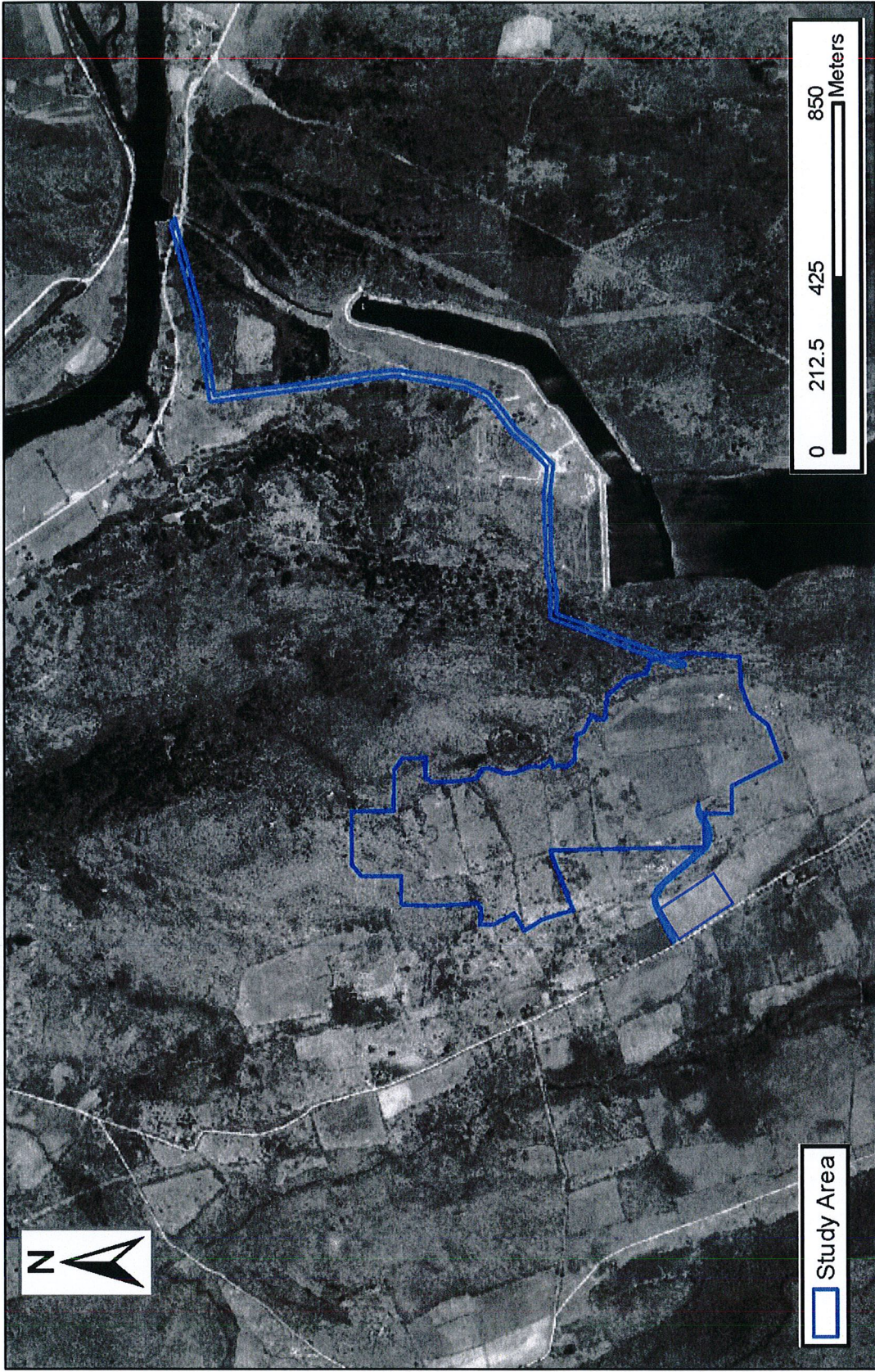


Figure 6. Excerpt from a 1934 aerial image depicting the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

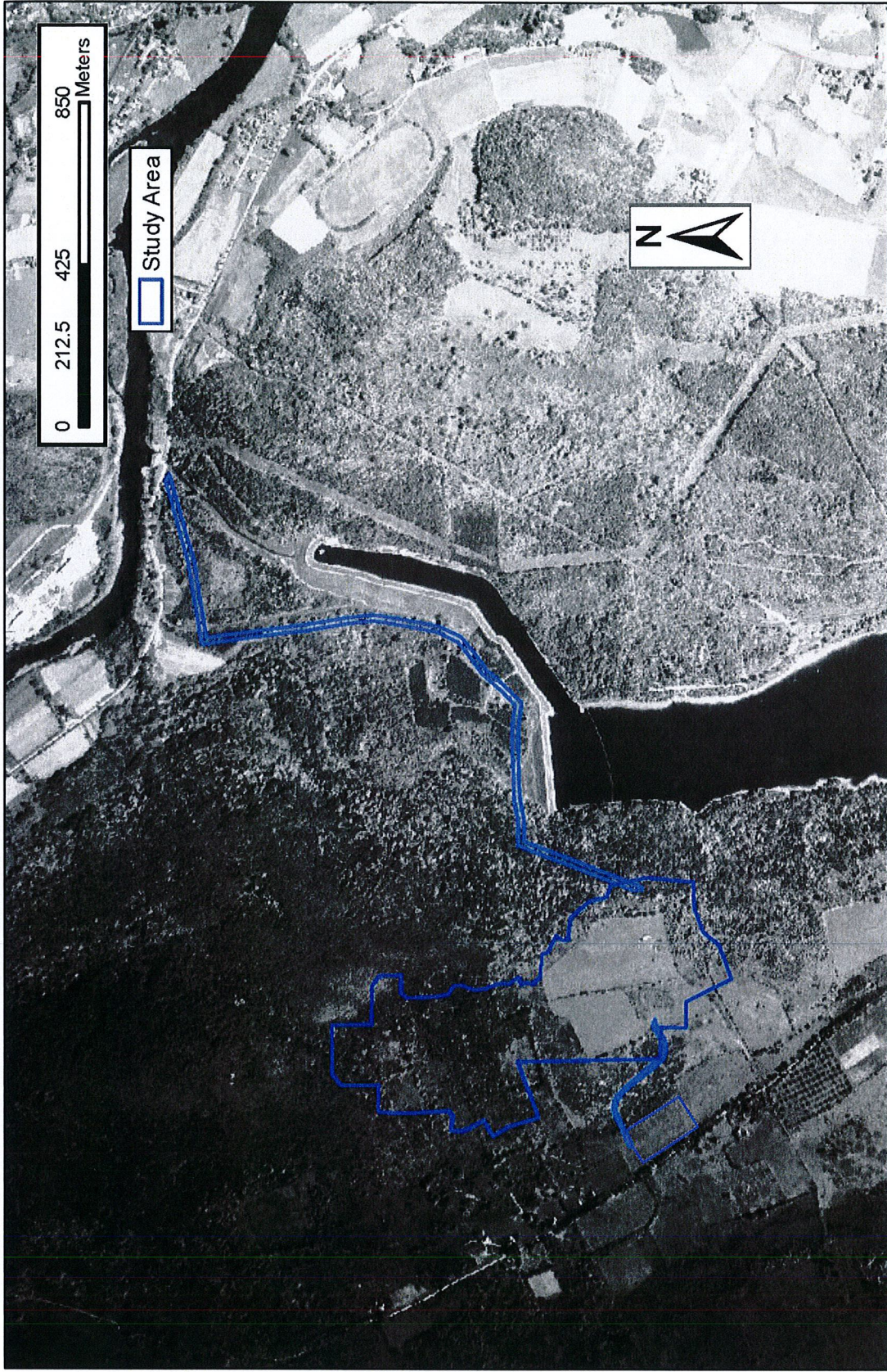


Figure 7. Excerpt from a 1941 aerial image depicting the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

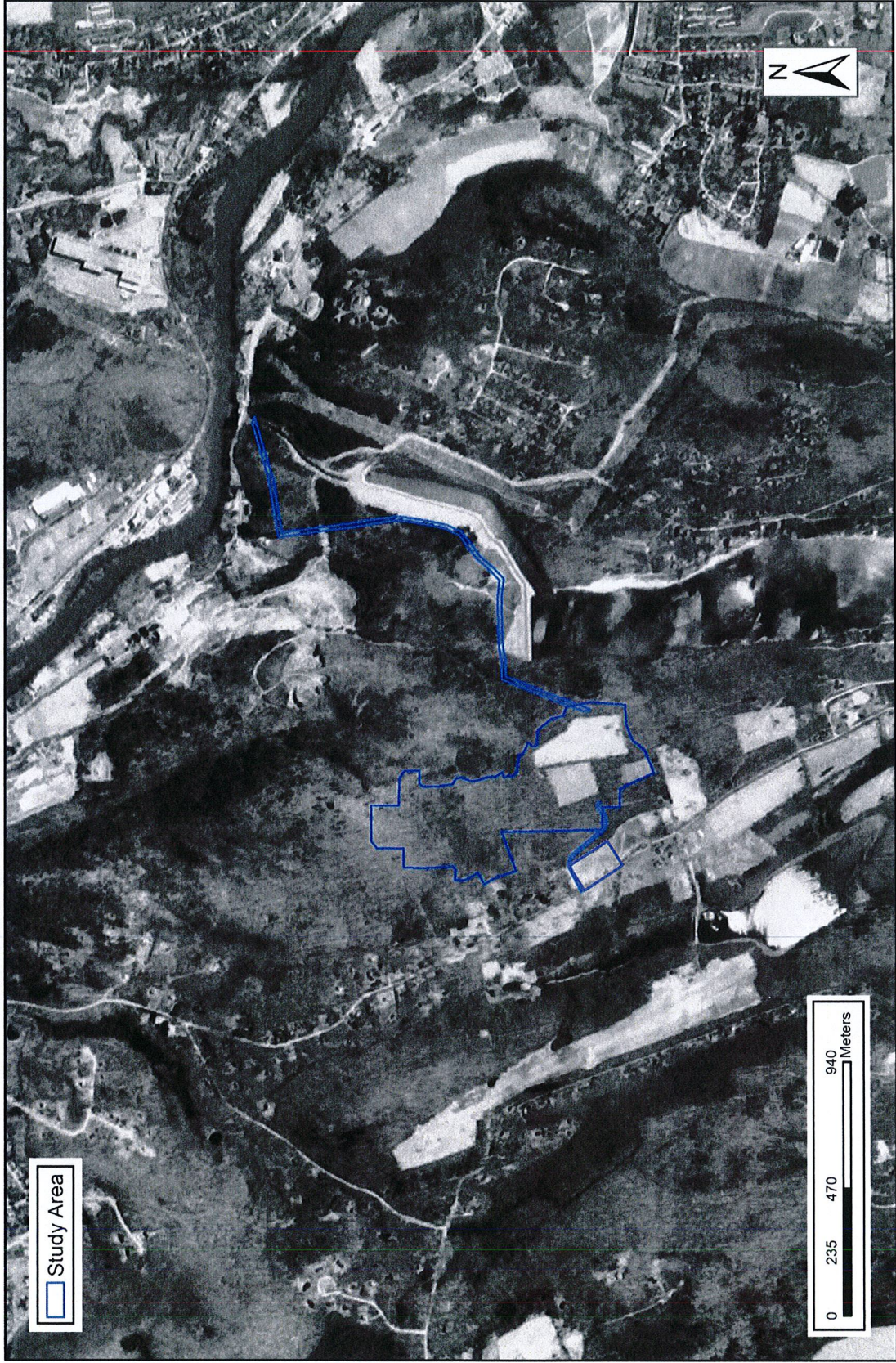


Figure 8. Excerpt from a 1997 aerial image depicting the solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

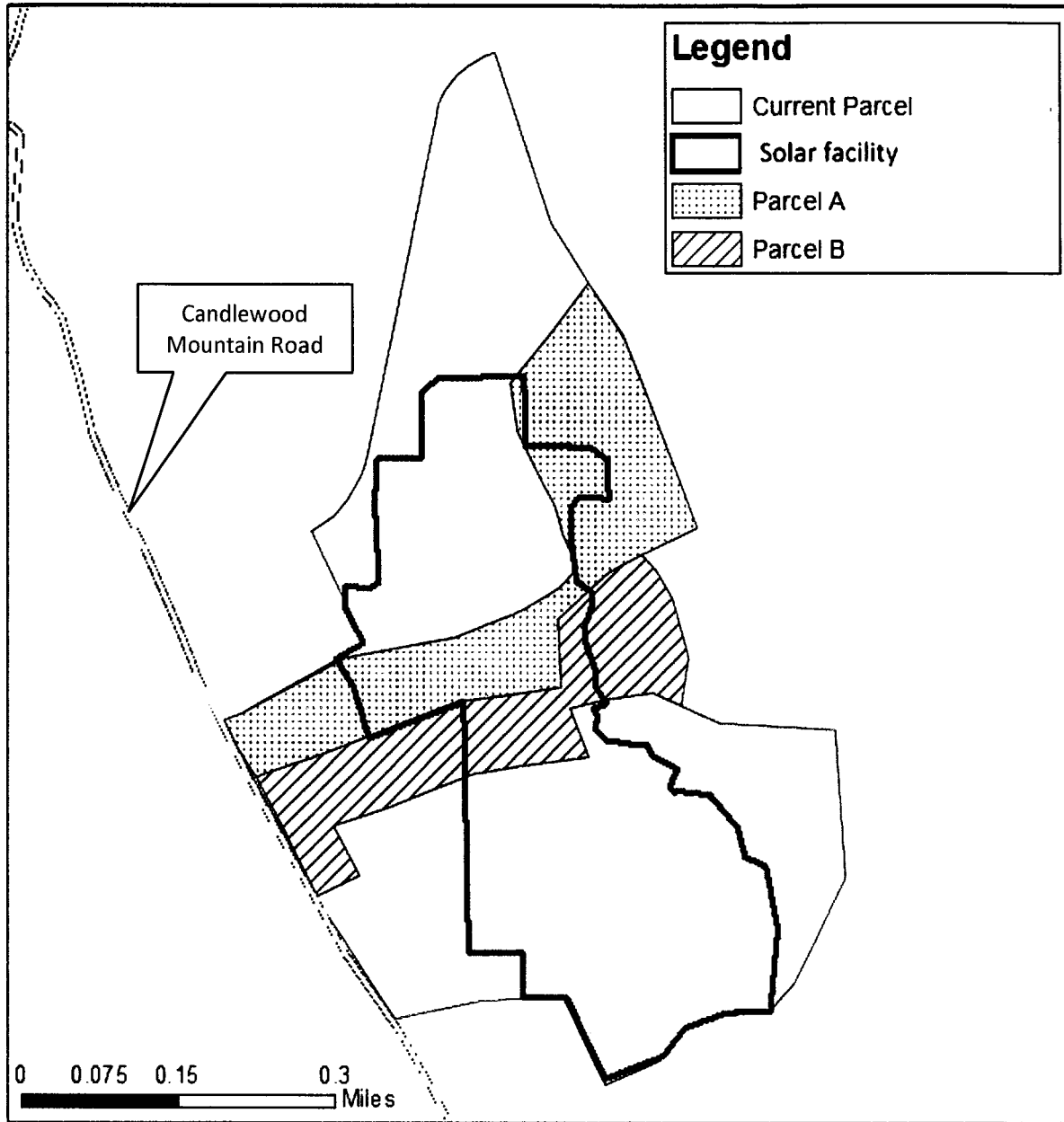


Figure 9. Digital map of the project parcel containing the proposed solar facility in New Milford, Connecticut (note this figure is associated with the property ownership section of the report).

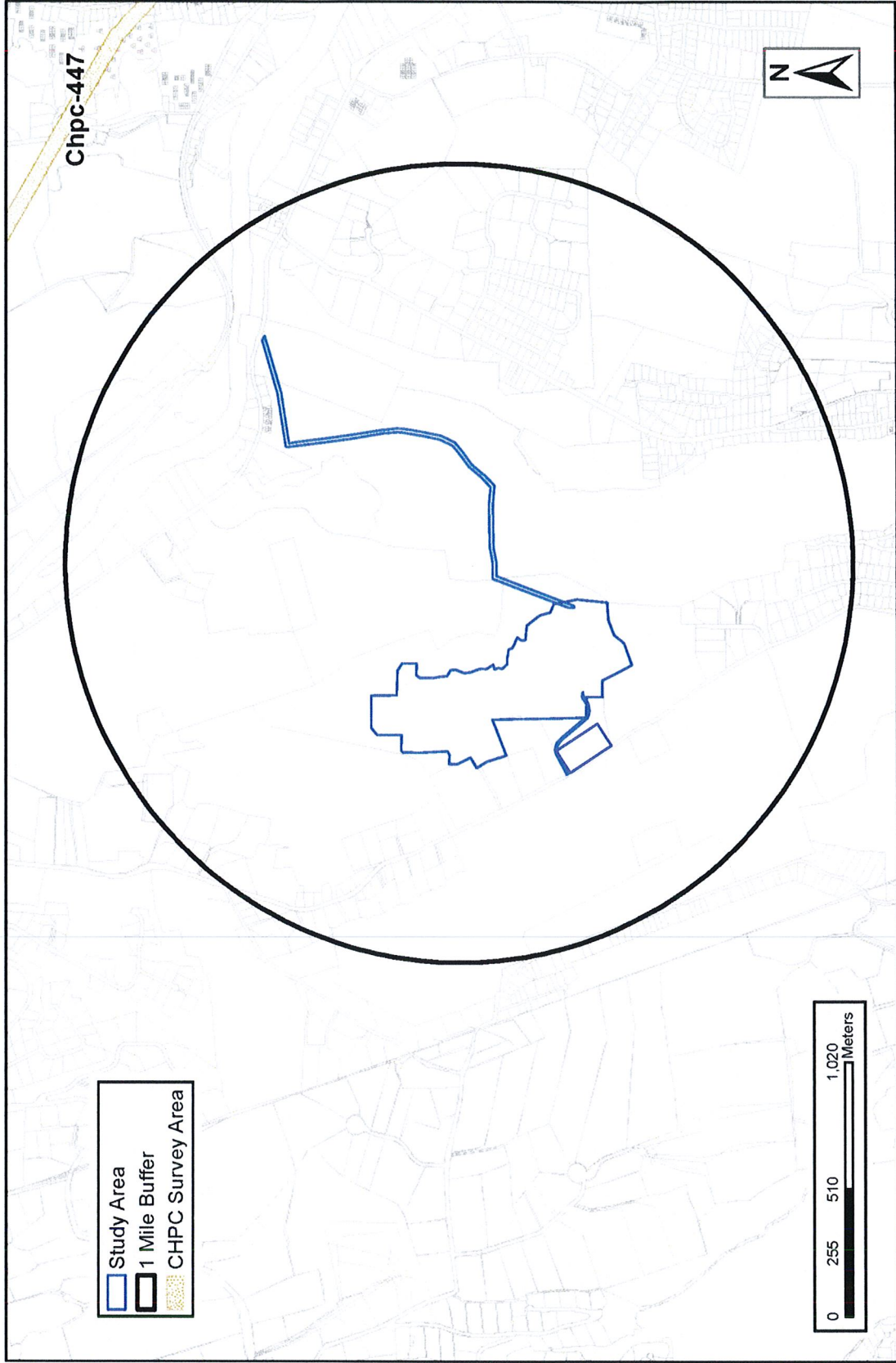


Figure 10. Digital map showing the locations of previously completed cultural resources investigations in the vicinity of the proposed solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

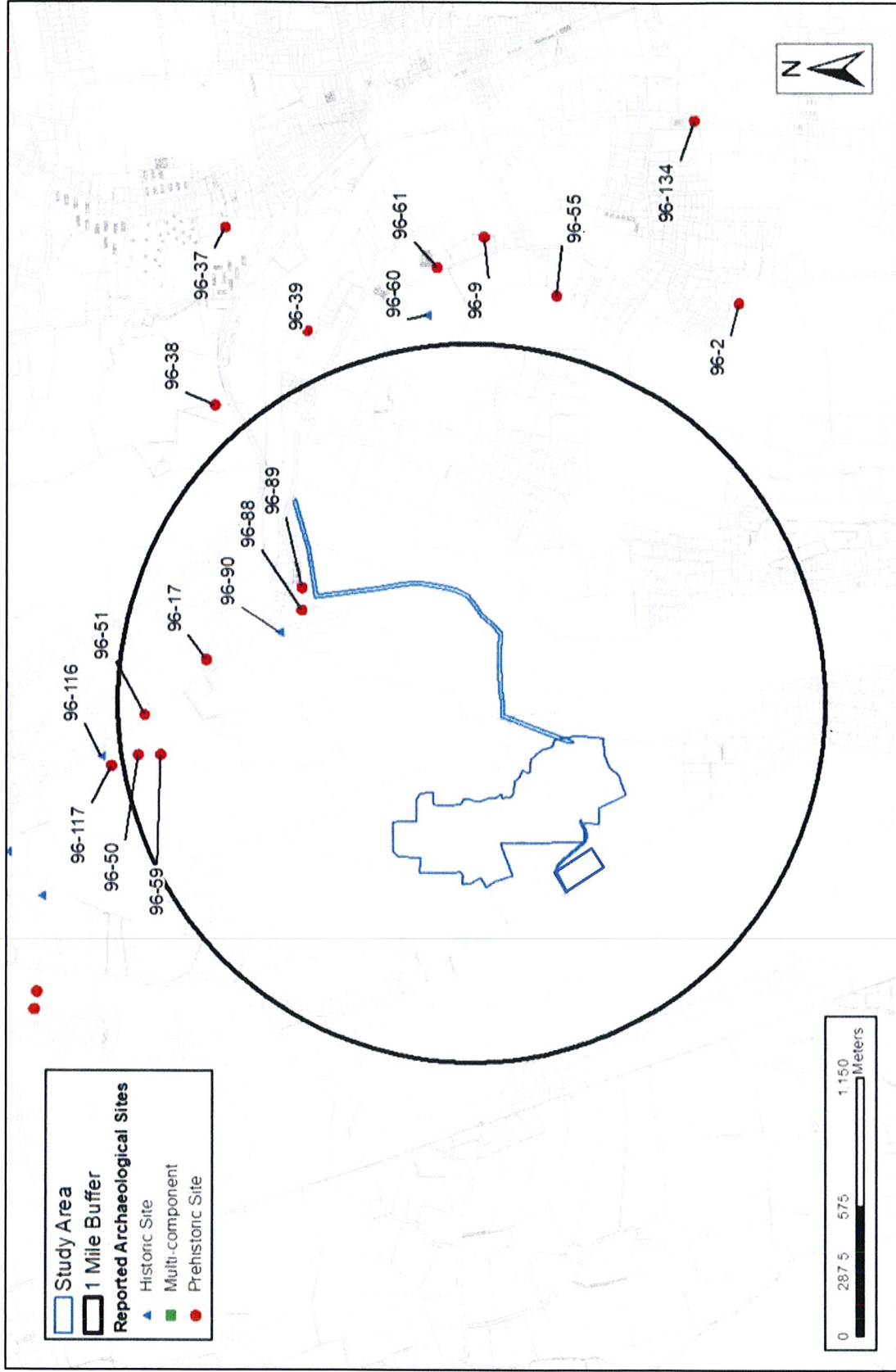


Figure 11. Digital map showing the locations of previously identified archaeological sites in the vicinity of the proposed solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

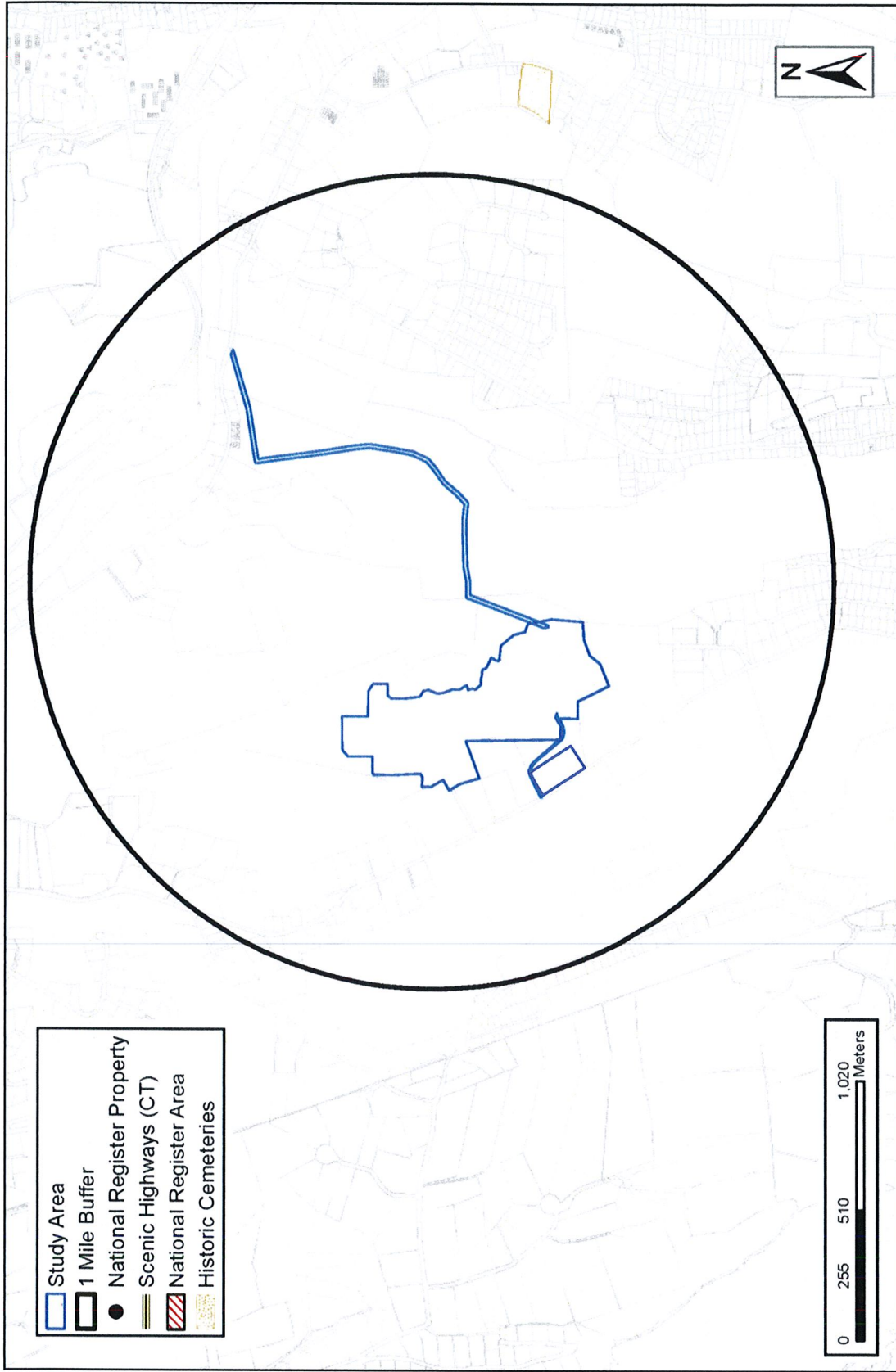


Figure 12. Digital map showing the locations of previously identified National Register of Historic Places properties in the vicinity of the proposed solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

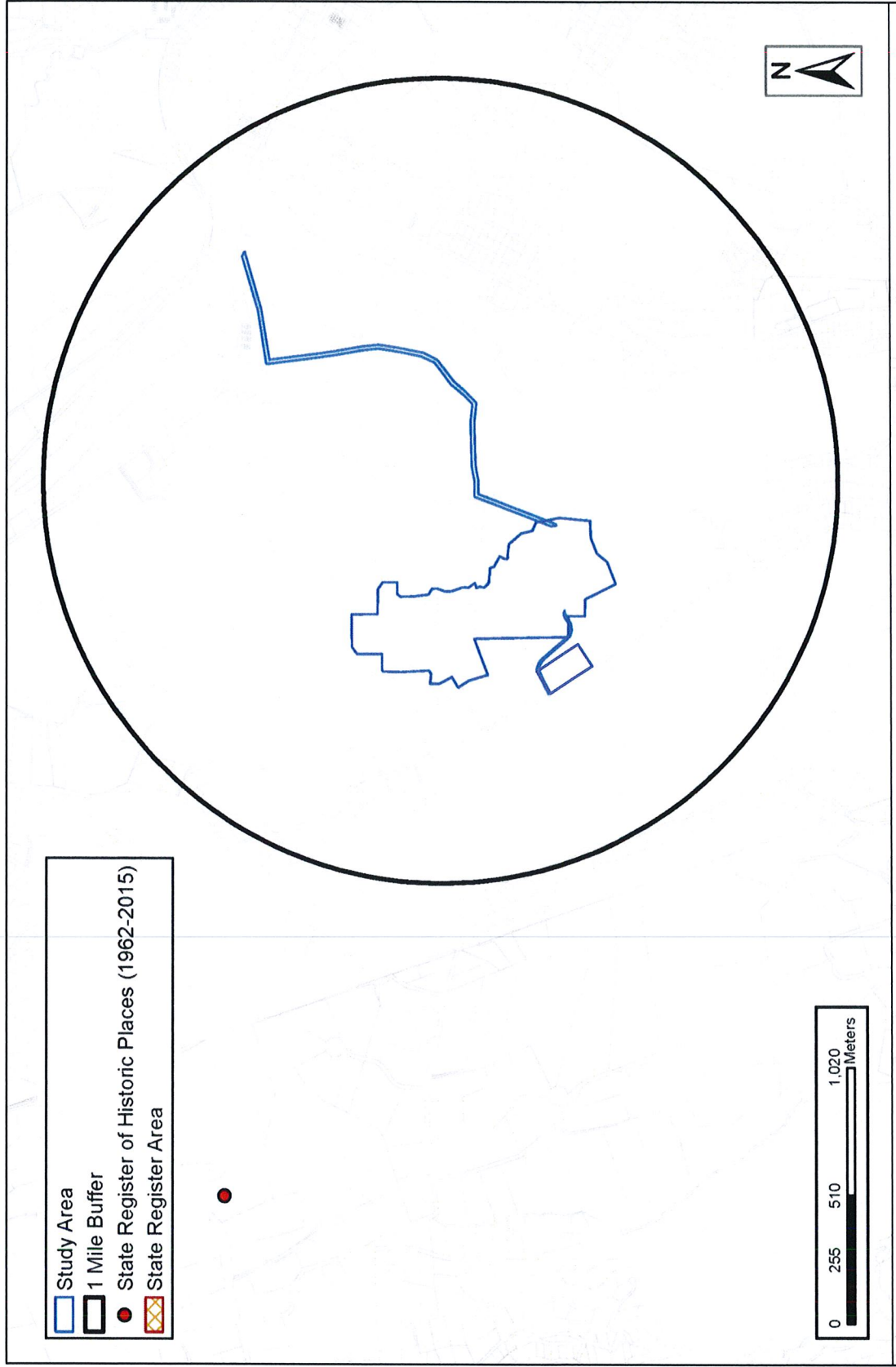


Figure 13. Digital map showing the locations of previously identified State Register of Historic Places properties in the vicinity of the proposed solar facility, access road, interconnect corridor, and potential temporary parking and materials storage/staging area in New Milford, Connecticut.

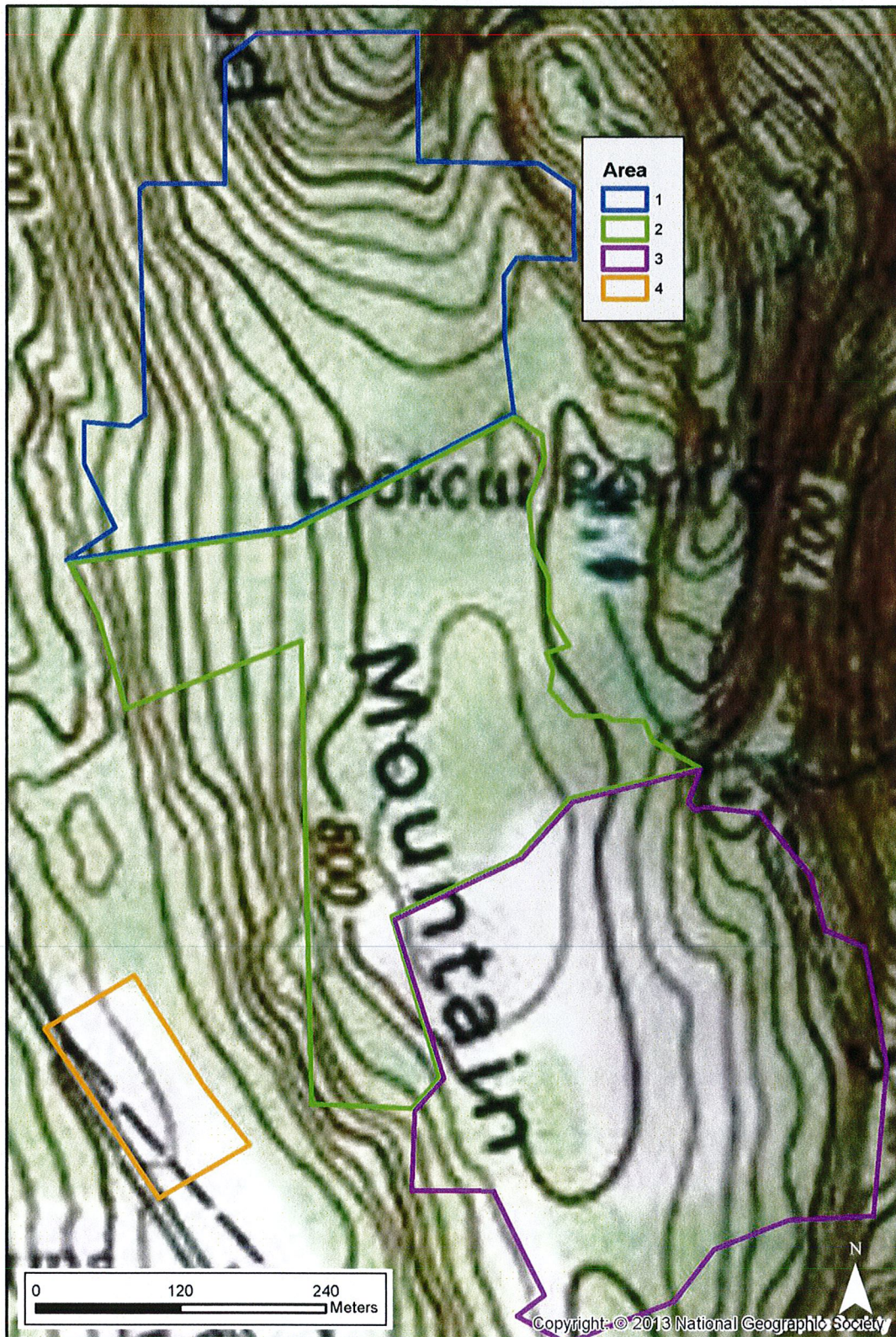


Figure 14. Excerpt for a 1996 USGS 7.5' series topographic quadrangle depicting the locations of the four test areas.

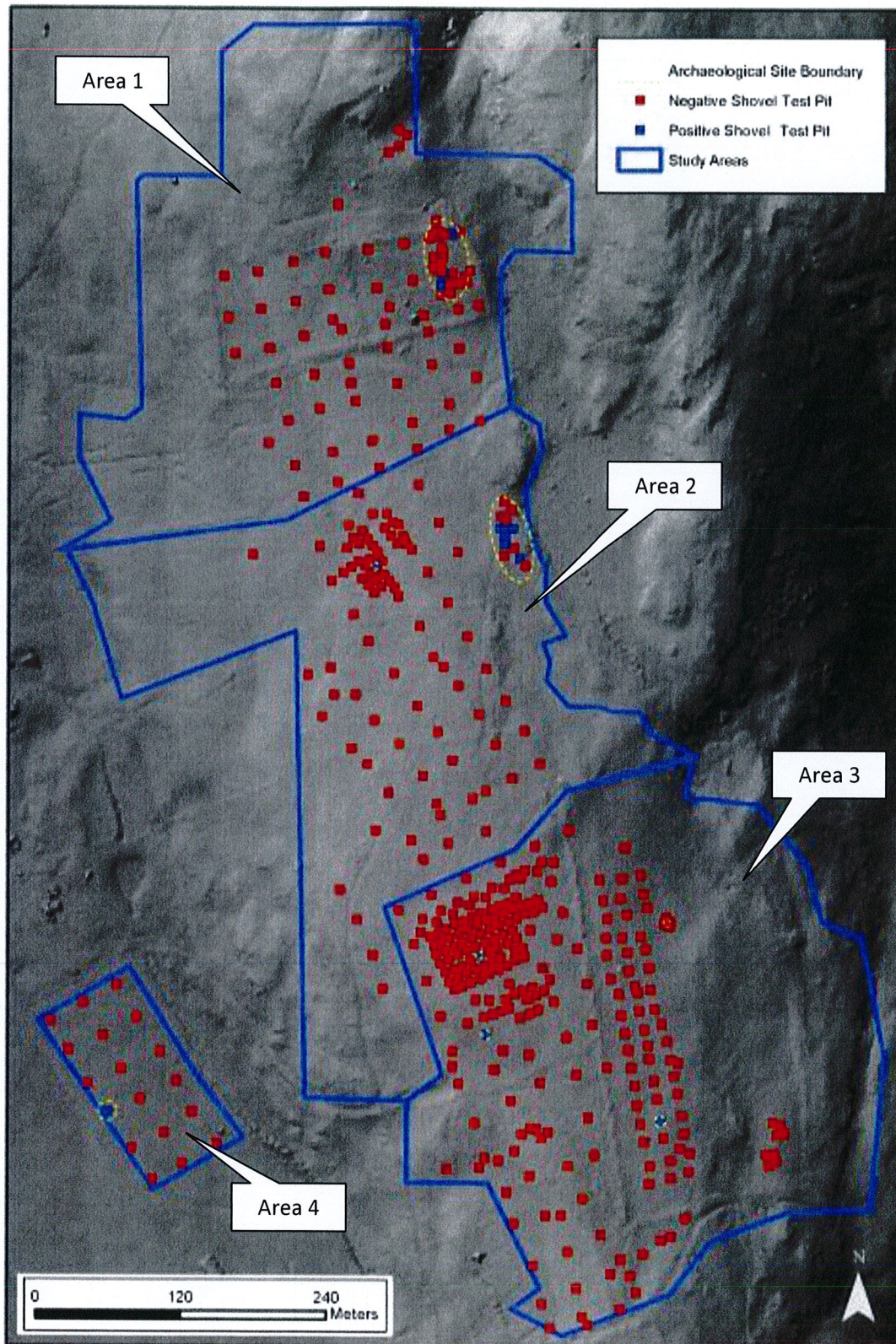


Figure 15. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout the moderate/high sensitivity areas.

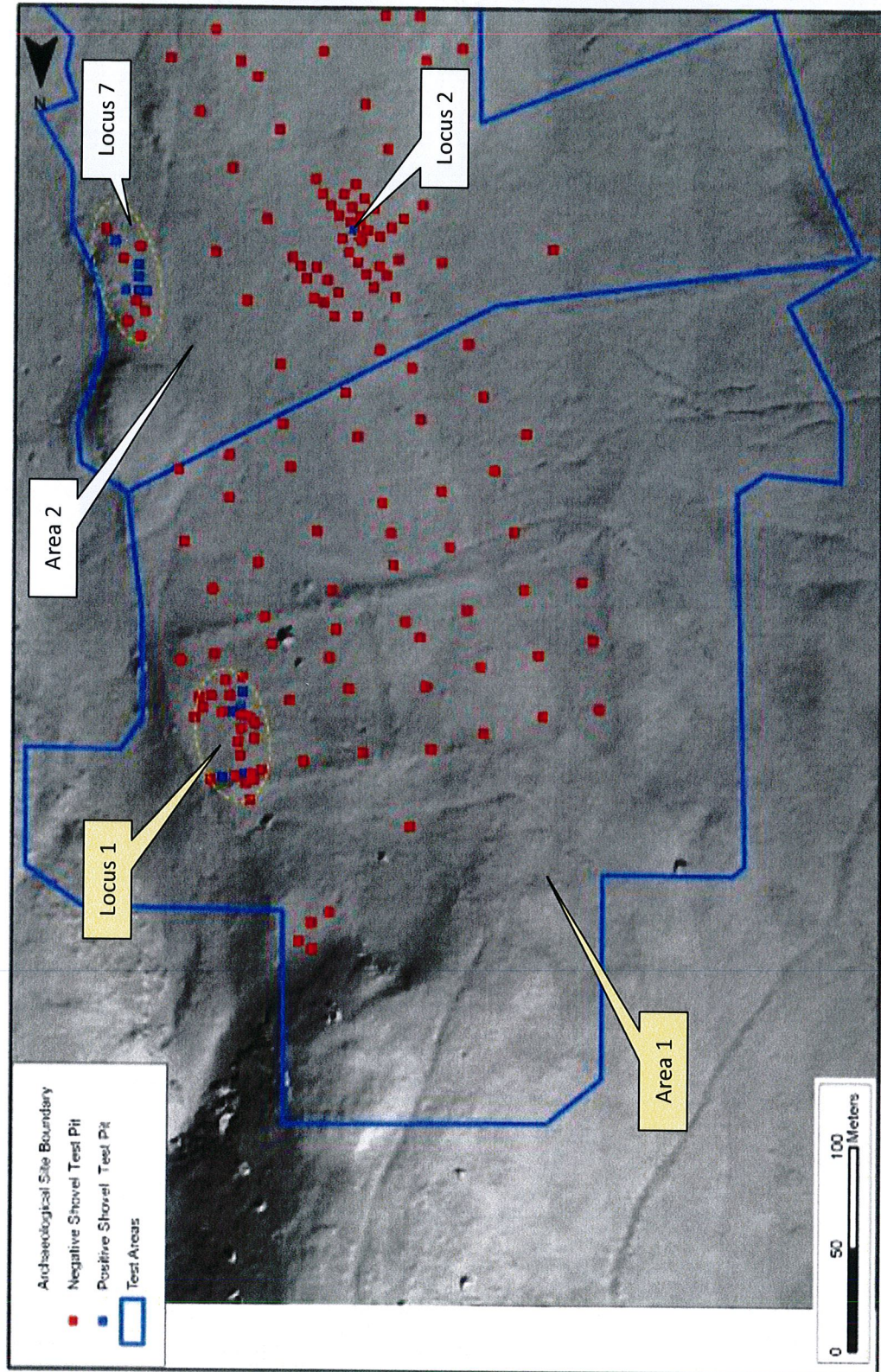


Figure 16. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 1 and Locus 1.

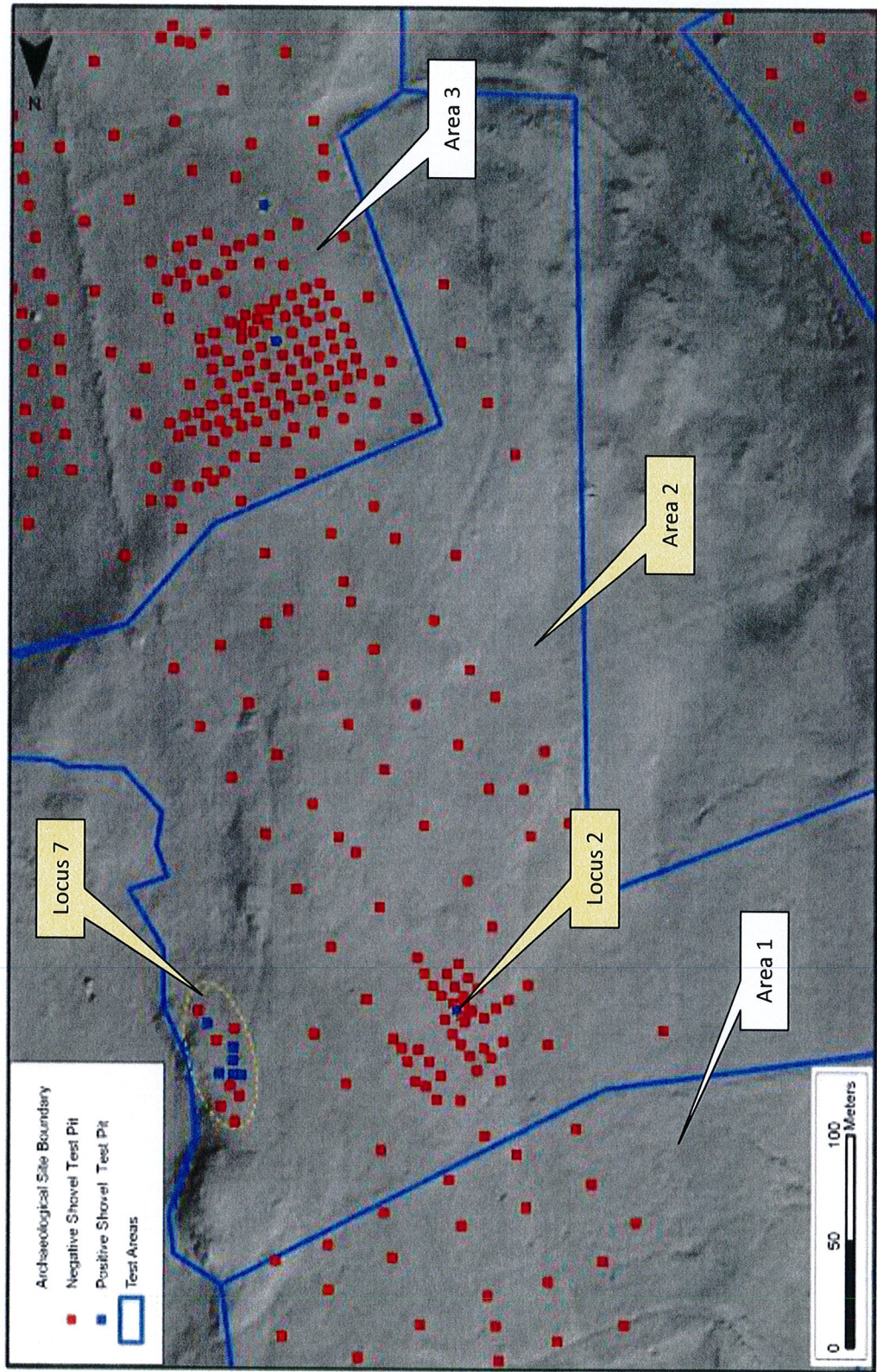


Figure 18. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 2, Locus 2, and Locus 7.



Figure 19. Overview photo of Locus 2 facing southwest.



Figure 20. Overview photo of Locus 7 facing northeast.

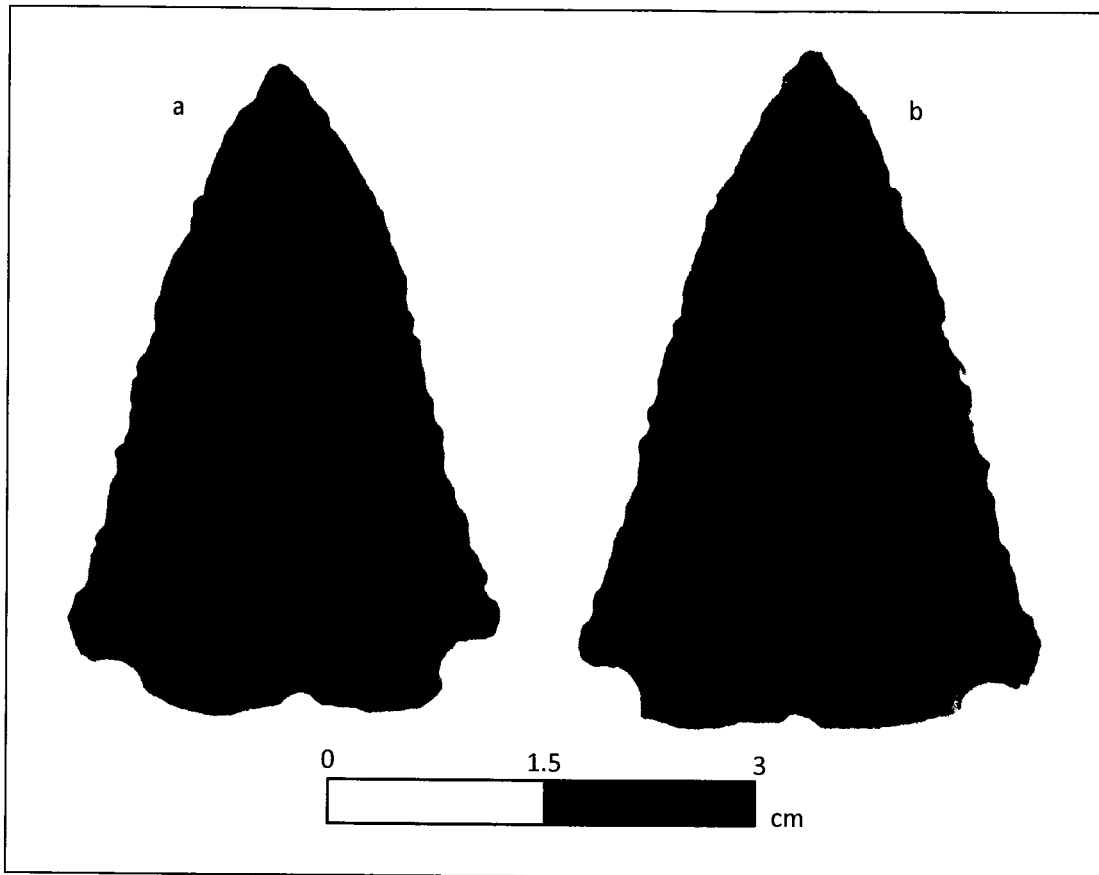


Figure 21. Photos of Bifurcate projectile point recovered from Locus 2 (a=obverse, b=reverse).

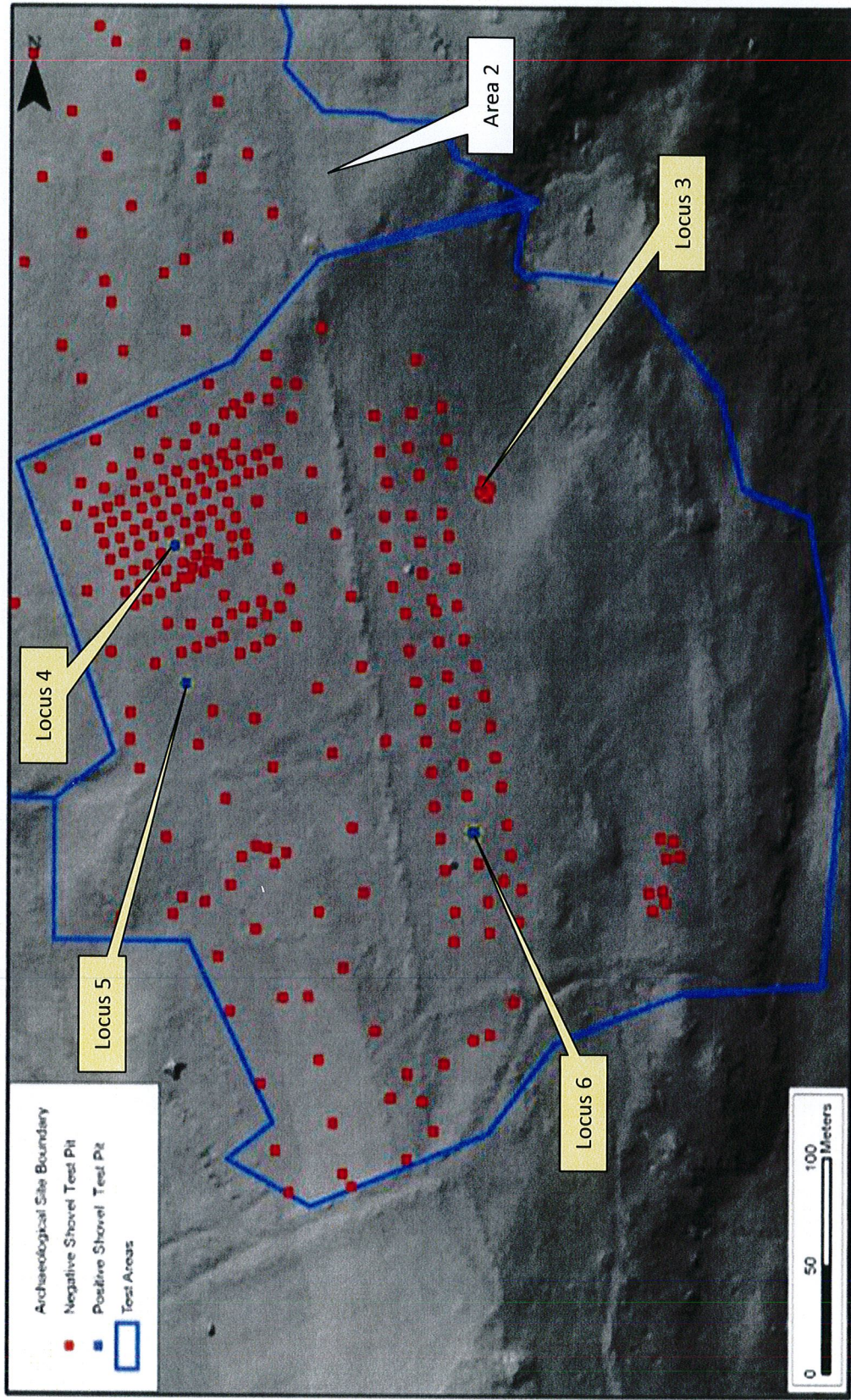


Figure 22. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 3, as well as Loci 3 through 6.



Figure 23. Overview photo of Locus 3 facing east.



Figure 24. Overview photo of Locus 4 facing northeast.



Figure 25. Overview photo of Locus 5 facing southeast.



Figure 26. Overview photo of Locus 6.

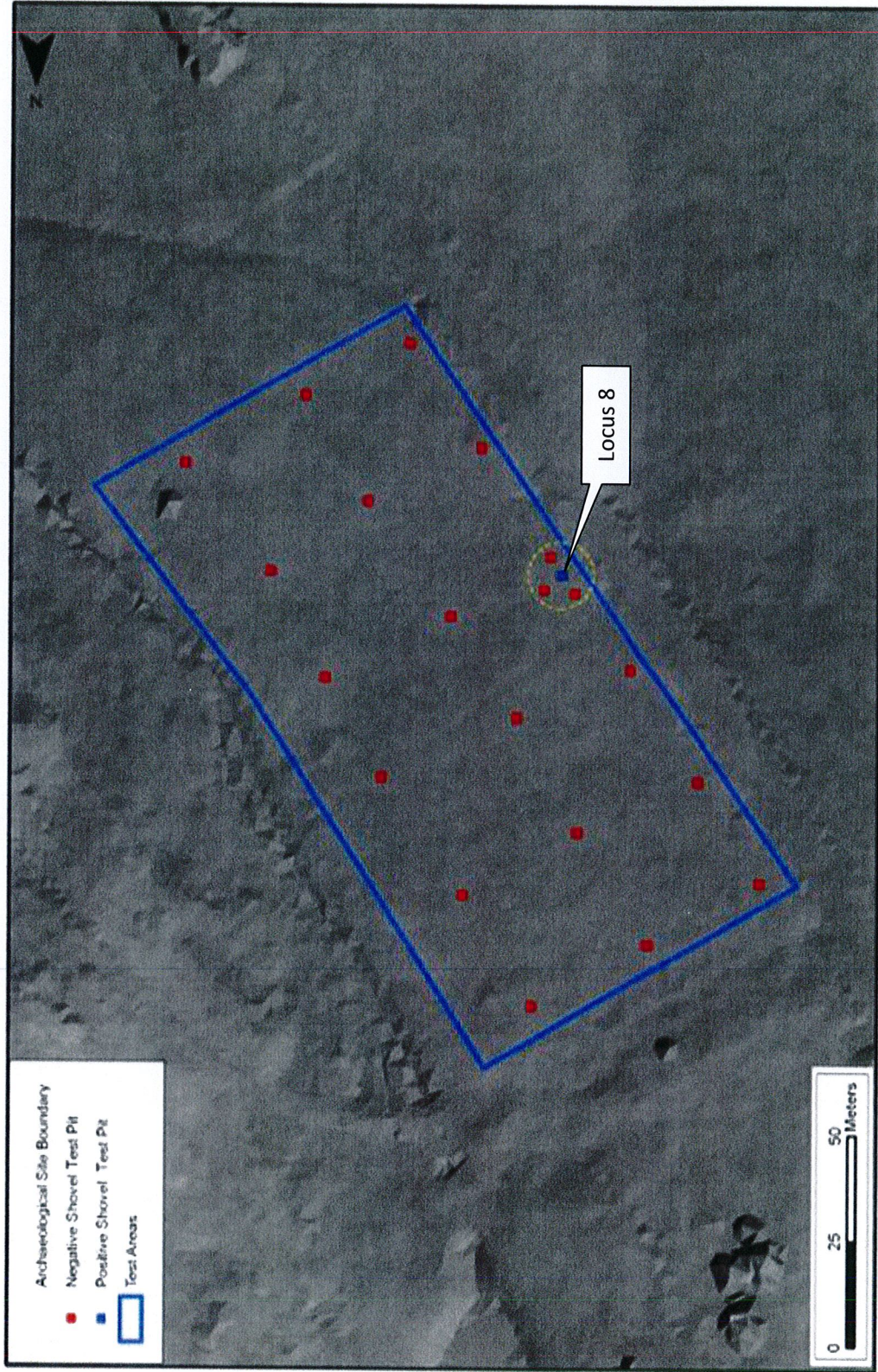


Figure 27. Excerpt from a LIDAR map showing the locations of all shovel tests excavated throughout Area 4 and Locus 8.



Figure 28. Overview photo of Locus 8 facing northeast.