EXHIBIT M

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PHASE IA CULTURAL RESOURCES ASSESSMENT SURVEY OF THE PROPOSED COMMUNITY POWER GROUP 4MWAC SOLAR PROJECT AT 24 MIDDLE ROAD IN ELLINGTON, CONNECTICUT

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ABSTRACT

This report presents the results of a Phase IA cultural resources assessment survey for a proposed solar facility located at 24 Middle Road in Ellington, Connecticut. The project area occupies approximately 20+ acres of land. The proposed development will include the installation of a 244 meter (800 foot) long access road located off of Middle Road and extending to the proposed array areas, as well as an interconnection that will extend to the project area from Pinney Street; it will measure approximately 260 m (800 ft) in length. A shorter access road extending along the interconnect route from Pinney Street towards the array areas also will be built, and it will measure approximately 60 m (200 ft) in length. The current investigation consisted of: 1) preparation of an overview of the region's prehistory, history, and natural setting; 2) a literature search to identify and discuss previously recorded cultural resources in the region; 3) a review of readily available historical maps and aerial imagery depicting the solar facility to identify potential historical resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project area to determine its archaeological sensitivity. The results of the survey indicate that the 20+ acres of land that will encompass the solar array, as well as the areas containing the interconnect and access roads contain low slopes and well-drained soils. All of these areas were deemed to possess a moderate/high archaeological sensitivity.

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CHAPTER I
INTRODUCTION

This report presents the results of a Phase IA cultural resources assessment survey of the proposed Solar Facility in Ellington, Connecticut (Figure 1). Community Power Group (CPG) requested that Heritage Consultants, LLC (Heritage) complete the Phase IA assessment survey as part of the planning process for the proposed solar center to be built on land at 24 Middle Road in Ellington, Connecticut. Heritage completed this investigation in August of 2022. All work associated with this project was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987) promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Project Description and Methods Overview

The project area is located 0.3 miles to the west of the intersection of Middle Road and Pinney Street (Route 286) in Ellington, Connecticut. It is situated at elevations ranging from approximately 77 to 85 m (253 to 279 ft) NGVD and will be the location of a solar array, two proposed access drives and turn radii, an interconnection route, and associated infrastructure. At the time of the pedestrian survey, the project area was accessed from Middle Road and vegetation throughout the project area consisted of a mixture of cultivated corn fields and lightly wooded areas (Figure 2). Pinney Brook runs northwest to southeast along the western boundary of the project area.

The Phase IA cultural resources assessment survey consisted of the completion of the following tasks: 1) a contextual overview of the region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously completed cultural resources surveys and previously recorded cultural resources in the region encompassing the project area; 3) a review of readily available historical maps and aerial imagery depicting the project area in order to identify potential historical resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project area in order to determine its archaeological sensitivity.

Project Results and Management Recommendations Overview

The review of historical maps and aerial images depicting the study area, as well as files maintained by the CT-SHPO did not reveal any previously identified archaeological sites within 1.6 km (1 mi) of the project area. This is likely due to a lack of professional surveys of this area rather than an actual absence of archaeological deposits. In addition, the background research revealed that the Ellington Center Historic District and the Knesseth Israel Synagogue are situated within 1.6 km (1 mi) of the project area; they are discussed in Chapter V. Heritage also combined data from historical map and aerial image analyses, as well as subsequent pedestrian survey, to stratify the project area into zones of no/low and/or moderate/high archaeological sensitivity.

Pedestrian survey, mapping, and photo documentation of the project area revealed that the entirety of the 20+ acres of land contain low slopes and well-drained soils. This area, which will contain the solar arrays, the access roads and turn arounds, and the interconnect, have been determined to possess moderate/high archaeological sensitivity.

Project Personnel

Heritage Personnel who contributed to the project include David R. George, M.A., RPA, (Principal Investigator); Antonio Medina, B.A. (Field Operations Manager), Renée Petruzelli, M.A., RPA (Project Archaeologist), Sean Buckley, B.A. (GIS Specialist), and David Naumec, PhD., (Historian).

CHAPTER II
NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the project region in Ellington, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both prehistoric and historical period site selection. These include general ecological conditions, as well as types of fresh water sources present, degree of slopes, and soils situated within a given project area. The remainder of this chapter provides a brief overview of the ecology, hydrological resources, and soils present within the project 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 different natural characteristics than the coastline. Recognizing this fact, Dowhan and Craig (1976), as part of their study of the distribution of rare and endangered species in Connecticut, subdivided the state into various ecoregions. Dowhan and Craig (1976:27) defined an ecoregion as:

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

Dowhan and Craig defined nine major ecoregions for the State of Connecticut. They are based on regional diversity in plant and animal indicator species (Dowhan and Craig 1976). Only one of the ecoregions is germane to the current investigation: North-Central Lowlands ecoregion. A summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the project area.

North-Central Lowlands Ecoregion

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

Hydrology in the Vicinity of the Project Parcel

The project parcel is situated within a region that contains several sources of freshwater, Pinney Brook, Marsh Brook, Belding Brook, and Pecks Brook, as well as unnamed streams, ponds, and wetlands. These freshwater sources may have served as resource extraction areas for Native American and historical populations. Previously completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for prehistoric occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources.

Soils Comprising the Project Parcel

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

A review of the soils within the project area is presented below. The project area is characterized by the presence of two major soil types: Narragansett and Wapping soils (Figure 3). A review of the two soils show that they consist of very deep, well drained loamy soils; they are the types of soils that are typically correlated with prehistoric and historical use and occupation. Descriptive profiles for each soil type are presented below; they were gathered from the National Resources Conservation Service.

<u>Narragansett Series:</u>

The Narragansett series consists of very deep, well drained loamy soils formed in a mantle of medium-textured deposits overlying till. They are nearly level to moderately steep soils on till plains, low ridges, and hills. Slope ranges from 0 to 25 percent. A typical profile associated with Narragansett soils is as follows: **Ap**--0 to 6 inches; dark brown (10YR 3/3) silt loam; weak medium granular structure; very friable; common medium roots; very strongly acid; clear wavy boundary. (4 to 10 inches thick) **Bw1**--6 to 15 inches; dark yellowish brown (10YR 4/6) silt loam; weak medium subangular blocky structure; very friable; common medium roots; very strongly acid; gradual wavy boundary. **Bw2**--15 to 24 inches; yellowish brown (10YR 5/6) silt loam; weak medium subangular blocky structure; very friable; common medium roots; strongly acid; clear wavy boundary. **Bw3**--24 to 28 inches; yellowish brown (10YR 5/6) gravelly silt loam; weak medium subangular blocky structure; very friable; few fine roots; 15 percent gravel; strongly acid; clear wavy boundary. **2C**--28 to 60 inches; light olive brown (2.5Y 5/4) very gravelly loamy coarse sand; single grain; loose; 45 percent gravel and cobbles; strongly acid.

<u>Wapping Series:</u>

The Wapping series consists of very deep, moderately to well drained loamy soils formed in silty mantled friable or firm till on uplands. They are nearly level to gently sloping soils on till plains, low ridges, and hills, typically on lower slopes and in slight depressions. A typical profile associated with Wapping soils is as follows: **Oi**--0 to 3 inches; slightly decomposed plant material. **A1**--3 to 5 inches; very dark brown (7.5YR 2/2) silt loam; weak fine granular structure; friable; many fine roots; very strongly acid; clear wavy boundary; and **A2**--5 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; weak fine granular structure; friable; many fine roots; very strongly acid; clear wavy boundary; and **Bw1**--8 to 13 inches; dark yellowish brown (10YR 4/4) silt loam; weak medium subangular blocky structure; friable;

common fine and medium roots; very strongly acid; gradual wavy boundary; **Bw2**--13 to 22 inches; yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; very strongly acid; gradual wavy boundary; **Bw3**--22 to 33 inches; brown (10YR 4/3) silt loam; massive; friable; few fine roots; 5 percent gravel; common medium faint yellowish brown (10YR 5/4) masses of iron accumulation and common medium faint grayish brown (10YR 5/2) iron depletions; very strongly acid; clear wavy boundary; **2C1**--33 to 40 inches; brown (10YR 5/3) sandy loam; massive; friable; 10 percent gravel; common fine distinct reddish brown (5YR 5/3) masses of iron accumulation and common medium faint grayish brown (10YR 5/2) iron depletions; strongly acid; clear wavy boundary; and **2C2**--40 to 63 inches; dark yellowish brown (10YR 4/4) very gravelly loamy sand; massive; friable; 35 percent gravel and 5 percent cobbles; strongly acid.

Summary

The natural setting of the area containing the proposed solar facility is common throughout the North-Central Lowlands ecoregion. Streams and rivers of this area empty into the Connecticut River, which in turn, drains into the Long Island Sound. Further, the landscape in general is dominated by sandy loamy soil types. In addition, low slopes dominate the region. Thus, in general, the project region was well suited to Native American occupation throughout the prehistoric era. This portion of Ellington was also used throughout the historical era, as evidenced by the presence of numerous historical residences and agricultural fields throughout the region; thus, archaeological deposits dating from the prehistoric and historical eras may be expected near or within the proposed project parcel.

CHAPTER III
PREHISTORIC SETTING

Introduction

Prior to the late 1970s and early 1980s, very few systematic archaeological surveys of large portions of the State of Connecticut had been undertaken. Rather, the prehistory of the region was studied at the site level. Sites chosen for excavation were highly visible and they were in such areas as the coastal zone, e.g., shell middens, and Connecticut River Valley. As a result, a skewed interpretation of the prehistory of Connecticut was developed. It was suggested that the upland portions of the state, i.e., the northeastern and northwestern hills ecoregions, were little used and rarely occupied by prehistoric Native Americans, while the coastal zone, i.e., the eastern and western coastal and the southeastern and southwestern hills ecoregions, 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 project parcel.

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

The earliest inhabitants of the area encompassing the State of Connecticut, who have been referred to as Paleo-Indians, arrived in the area by ca., 12,000 B.P. (Gramly and Funk 1990; Snow 1980). Due to the presence of large Pleistocene mammals at that time and the ubiquity of large fluted projectile points in archaeological deposits of this age, Paleo-Indians often have been described as big-game hunters (Ritchie and Funk 1973; Snow 1980); however, as discussed below, it is more likely that they hunted a broad spectrum of animals. While there have been numerous surface finds of Paleo-Indian projectile points throughout the State of Connecticut, only three sites, the Templeton Site (6-LF-21) in Washington, Connecticut, the Hidden Creek Site (72-163) in Ledyard, Connecticut, and the Brian D. Jones Site (4-10B) in Avon, Connecticut have been studied in detail and dated using the radiocarbon method (Jones 1997; Moeller 1980; Leslie et al., 2020).

The Templeton Site (6-LF-21) is in Washington, Connecticut and was occupied between 10,490 and 9,890 years ago (Moeller 1980). In addition to a single large and two small fluted points, the Templeton Site produced a stone tool assemblage consisting of gravers, drills, core fragments, scrapers, and channel flakes, which indicates that the full range of stone tool production and maintenance took place at the site (Moeller 1980). Moreover, the use of both local and non-local raw materials was documented in the recovered tool assemblage, suggesting that not only did the site's occupants spend some time in the area, but they also had access to distant stone sources, the use of which likely occurred during movement from region to region.

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

the Hidden Creek Site represented a short-term occupation, and that separate stone tool reduction and rejuvenation areas were present.

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

Excavations at the Brian D. Jones Site revealed 44 soil anomalies, 27 of which were characterized as cultural features used as hearths and post holes, among other uses. One hearth has been dated thus far (10,520 ± 30 14C yr BP; charred Pinus; 2-sigma 12,568 to 12,410 CAL BP) (Leslie et al., 2020: 4). Further radiocarbon testing will be completed in the future. Artifact concentrations surrounded these features and were separated in two stratigraphic layers represented two temporally discrete Paleoindian occupations. The recovered lithic artifacts are fashioned from Normanskill chert, Hardyston jasper, Jefferson/Mount Jasper rhyolite, chalcedony, siltstone, and quartz. They include examples of a fluted point base, preforms, channel flakes, pièces esquillées, end scrapers, side scrapers, grinding stones, bifaces, utilized flakes, gravers, and drilled stone pendant fragment. Lithic tools numbered over 100, while toolmaking debris was in the thousands. The channel flakes represent the production of spear points used in hunting. Scrapers, perforators, and grinding stones indicate animal butchering, plant food grinding, the production of wood and bone tools, and the processing of animal skins for clothing and tents. Other collected cultural materials included charred botanicals and calcined bone. Botanicals recovered in hearth features included burned remains of cattail, pin cherry, strawberry, acorn, sumac, water lily, and dogwood. In addition, pieces of ochre were recovered during the excavations; these, in combination with the drilled pendant fragment, are the earliest evidence of personal adornment and artistic expression identified in Connecticut (Sportman and Leslie 2020). Approximately 15,000 artifacts were collected in total. Analysis is ongoing by Archaeological and Historical Services, Inc., and planned to be completed by 2022. The Brian D. Jones Site was fully excavated, and bridge construction proceeded by the Connecticut Department of Transportation.

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

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

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

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

Like their Paleo-Indian predecessors, Early Archaic sites tend to be very small and produce few artifacts, most of which are not temporally diagnostic. While Early Archaic sites in other portions of the United States are represented by projectile points of the Kirk series (Ritchie and Funk 1973) and by Kanawha types (Coe 1964), sites of this age in southern New England are identified on the basis of a series of 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 in Manchester, New Hampshire and studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between ca., 7,700 and 6,000 years ago. In fact, Dincauze (1976) obtained several radiocarbon dates from the Middle Archaic component of the Neville Site. The dates, associated with the then-newly named Neville type projectile point, ranged from 7,740±280 and 7,015±160 B.P. (Dincauze 1976).

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

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

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

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 m^2 (5,383 ft^2). These base camps reflect frequent movements by small groups of people in search of seasonally abundant resources. The overall settlement pattern of the Laurentian Tradition was dispersed in nature, with base camps located in a wide range of microenvironments, including riverine as well as upland zones (McBride 1978, 1984:252). Finally, subsistence strategies of Laurentian Tradition focused on hunting and gathering of wild plants and animals from multiple ecozones.

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

Terminal Archaic Period (3,700 to 2,700 B.P.)
The Terminal Archaic Period, which lasted from ca., 3,700 to 2,700 BP, is perhaps the most interesting, yet confusing of the Archaic Periods in southern New England prehistory. Originally termed the "Transitional Archaic" by Witthoft (1953) and recognized by the introduction of technological innovations, e.g., broadspear projectile points and soapstone bowls, the Terminal Archaic has long posed problems for regional archeologists. While the Narrow-Stemmed Tradition persisted through the Terminal Archaic and into the Early Woodland Period, the Terminal Archaic is coeval with what appears to be a different technological adaptation, the Susquehanna Tradition (McBride 1984; Ritchie 1969b). The Susquehanna Tradition is recognized in southern New England by the presence of a new stone tool industry that was based on the use of high-quality raw materials for stone tool production and a settlement pattern different from the "coeval" Narrow-Stemmed Tradition.

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

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

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

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

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

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

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

Careful archaeological investigations of Early Woodland sites in southern New England have resulted in the recovery of narrow stemmed projectile points in association with ceramic sherds and subsistence remains, including specimens of white-tailed deer, soft and hard-shell clams, and oyster shells (Lavin and Salwen: 1983; McBride 1984:296-297; Pope 1952). McBride (1984) has argued that the combination of the subsistence remains and the recognition of multiple superimposed cultural features at various sites indicates that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

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

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

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

specific sites to support large village populations indicates that the Middle Woodland Period was characterized by a resource acquisition strategy that can best be termed as logistical collection (McBride 1984:310).

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

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

Stone tool assemblages associated with Late Woodland occupations, especially village-sized sites, are functionally variable and they reflect plant and animal resource processing and consumption on a large scale. Finished stone tools recovered from Late Woodland sites include Levanna and Madison projectile points; drills; side-, end-, and thumbnail scrapers; mortars and pestles; nutting stones; netsinkers; and celts, adzes, axes, and digging tools. These tools were used in activities ranging from hide preparation to plant processing to the manufacture of canoes, bowls, and utensils, as well as other settlement and subsistence-related items (McBride 1984; Snow 1980). Finally, ceramic assemblages recovered from Late Woodland sites are as variable as the lithic assemblages. Ceramic types identified include Windsor Fabric Impressed, Windsor Brushed, Windsor Cord Marked, Windsor Plain, Clearview Stamped, Sebonac Stamped, Selden Island, Hollister Plain, Hollister Stamped, and Shantok Cove Incised (Lavin 1980, 1988a, 1988b; Lizee 1994a; Pope 1953; Rouse 1947; Salwen and Ottesen 1972; Smith 1947). These types are more diverse stylistically than their predecessors, with incision, shell stamping, punctation, single point, linear dentate, rocker dentate stamping, and stamp and drag impressions common (Lizee 1994a:216).

Summary of Connecticut Prehistory

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

CHAPTER IV
HISTORICAL OVERVIEW

Introduction

The proposed Community Power Group Solar Project is situated on an approximately 20-acre parcel located at 24 Middle Road in the Town of Ellington, located in Tolland County, Connecticut. For the purposes of this study, this history will provide an overview of Tolland County and the Town of Ellington, with a focus on the impact of the proposed project area. As is the case with most Connecticut towns, present-day Ellington originated as Native American settlements and later became an English colonial village. Through the nineteenth and twentieth centuries, most Tolland County towns functioned as agricultural hubs with manufacturing powered by local waterways as was the case with Ellington. Due to the absence of any major city, port, or waterway near the town, its farmers relied on markets in nearby towns such as Hartford, Windsor, and Manchester. The automobile culture of the twentieth century along with the development of improved roads and highways in the twenty-first century, connected the Town of Ellington to nearby cities, yet it largely remained rural with areas of residential and commercial development.

Tolland County

Tolland County was organized by the Connecticut General Assembly in 1785 and was created from portions of eastern Hartford County and western Windham County. The county is located entirely in Connecticut's eastern upland region, extending from the Massachusetts state border on the north to New London County on the south, and is bounded to the west by Hartford County and to the east by Windham County. Important waterways associated with Tolland County include the Hop River, Middle River, Mount Hope River, Natchaug River, and Willimantic River as well as Bolton Lake, Shenipsit Lake, Mansfield Hollow Lake, and Wangumbaug Lake (Cole 1888; Beers 1903). Its largest watercourse is the Willimantic River, which, along with some of its tributaries, provided important sources of waterpower. As part of the upland region, Tolland County was colonized later than the coastal and Connecticut River Valley regions, generally after 1700. During the industrializing period, its towns' development varied depending on the extent to which their inhabitants were able to take advantage of waterpower sites. None, however, were able to develop large cities, although a few substantial industrial villages appeared. As a result of this lack of urbanization, most of the county was too distant from Connecticut's large urban areas to be strongly affected by the suburbanization trend. Even the construction of Interstate 84 during the latter part of the twentieth century could not overcome the problem of distance in most towns. The county's three largest towns are Vernon, Mansfield, and Ellington while other important population centers are located at Tolland, Coventry, and Stafford (Connecticut 2022d).

Woodland Period to Seventeenth Century

During the Woodland Period of American history (ca. 3,000 to 2,500 years ago), indigenous peoples who resided in present-day Connecticut were part of the Algonquian culture of northeastern North America (Lavin 2013). They spoke variations of Algonquian languages and resided in extended kinship groups on lands maintained for a variety of horticultural and resource extraction purposes (Goddard 1978). These communities practiced subsistence activities including hunting, fowling, and fishing, along with the cultivation of crops such as maize, squash, and beans. They seasonally harvested shellfish, fruits, and plants during warmer periods, and gathering nuts, roots, and tubers during colder times (Lavin 2013). During the winter, these communities came together to conduct deer hunts. Native people resided in settlements concentrated along rivers or wetlands, with villages fortified by wooden palisades at times.

Habitations, known as a *weetu* or *wigwam,* consisted of a tree sapling frame covered in reed matting during warm months and tree bark in the winter. These varied in size from small, individual dwellings to expansive "long house" structures (Lavin 2013). The Native people who resided at present-day Ellington affiliated with the Nipmuc, Podunk, and Agawam communities (De Forest 1852; Lavin 2013).

Seventeenth Century through Eighteenth Century

As Native communities maintained oral tradition rather than a written record, most surviving information of the Indigenous people of Connecticut was recorded by European observers who were Dutch or English colonists (Lavin 2013). In 1614, Dutch traders sailing under Captain Adrian Block were the earliest Europeans known to have sailed along Long Island Sound and up the Connecticut River where they initiated contact and trade with the Indigenous people of the Connecticut River Valley (De Forest 1852; Lavin 2013). Following that voyage, Block created a figurative map of the region that depicted the Connecticut River, which the Dutch named the *Versche Rivier* (Fresh River) due to it being a freshwater river. By 1620, the Dutch partnered with the Pequot of southeastern Connecticut to trade wampum and furs for European goods. In 1624, they founded New Netherland Colony around Manhattan and the Hudson River and built a fort at present-day Hartford in 1633 (Jacobs 2009). The Pequot extended their dominance over the Long Island Sound and the lower Connecticut River Valley bringing groups there into a tributary relationship under their leadership, including the Mohegan (Hauptman & Wherry 2009; McBride 2013). To break from the Pequot, conquered Native leaders invited the English to the valley who settled the towns of Windsor (1633), Wethersfield (1634), Hartford (1635), and Saybrook (1635) (Van Dusen 1961). Tensions grew following the death of English traders, which were blamed on the Pequot, and in retaliation Massachusetts soldiers destroyed one of their villages in August 1636, which began the Pequot War. In May 1637, Connecticut forces, which included some Mohegans and the Sachem Uncas, destroyed a Pequot village at Mistick. The Pequot fled west where the final battle of war was fought at present-day Fairfield in July 1637 (Cave 1996). Pequot territory was considered conquered land claimed by Connecticut Colony while Massachusetts Bay settlers formed New Haven Colony at Quinnipiac in late 1638. In 1652, the Dutch lost the *Huys de Hoop* at Hartford during the First Anglo-Dutch War (Trumbull 1886). In January of 1639, the Connecticut River towns adopted the "fundamental orders" which outlined the framework for Connecticut Colony, a self-governed colony separate from Massachusetts Bay or Plimoth (Trumbull 1886).

In the aftermath of the Pequot War, the Sachem Uncas claimed much of northeastern Connecticut colony, the lands of former Pequot tributaries, as Mohegan lands through both right of conquest and hereditary claims (Oberg 2006). This included lands that would become the Town of Colchester. During the upheaval of King Philip's War (1675-1676), much of present-day Tolland and Windham counties were depopulated of Nipmuc communities or they fell in with the Mohegan who claimed most of those lands as their own (Oberg 2006). Connecticut Colony recognized Mohegan land claims in present-day New London and Windham Counties but other than present-day Hebron, Columbia, and Andover, few other Mohegan claims to present-day Tolland County were allowed (Oberg 2006). The area now known as Ellington was obtained by the town of Windsor from Native leaders loosely known as "River Indians," which likely refers to Podunk or Agawam communities in this case. In 1671, an individual named Nearowanocke, signed a deed for a large part of the original Windsor settlement located to the east of the Connecticut River, including what are now Ellington and the southwest part of Somers (Stiles 1891). In 1678, a trio of Native Americans named Wequagun, Wawapaw, and Waquompo confirmed an earlier 1675 sale of the part of Enfield lying north of Freshwater River. The affiliations of these natives are also unknown, though it is possible that they were members of the Agawam tribe, whose territory encompassed that area, although the exact borders of these land grants are uncertain (Wright 1905).

The territory that Windsor encompassed was expansive and originally included the modern-day towns of East Windsor, South Windsor, Ellington, Windsor Locks, and part of Bloomfield, as well as small parts of other neighboring towns (Van Dusen 1961). The area that is now Ellington was initially known as "Weaxskashuck" and was not settled until the early eighteenth century, when English colonist Samuel Pinney arrived in about 1717 (Stiles 1891). Early settlers in Connecticut were primarily farmers who raised various types of grain as well as tobacco. Later on, some farmers turned to grazing and raised livestock. By 1735, there were enough inhabitants to establish the Ellington Parish within Windsor. Early forms of industry appeared as gristmills, sawmills, and fulling mills became common (Van Dusen 1961). By the time of the first census in Connecticut in 1756, the population of Windsor (which still included Ellington) had reached 4,220 residents (Connecticut 2021a). In 1768, the town of East Windsor separated from Windsor, which encompassed all the territory on the eastern side of the Connecticut River, including modern-day Ellington (Cole 1888). During the American Revolution (1775-1783) Ellington recruited soldiers for the war effort (Stiles 1891). After the Revolution, the town recovered from wartime economic disruptions thanks to its robust agricultural production. Although it is unclear how many people in town were free or enslaved prior to 1790, slavery likely existed in Ellington, practiced by a few wealthy families, merchants, and ministers. It would not be until 1784 that the State passed a gradual manumission law, but slavery was not fully abolished until 1848 (Normen 2013). In 1786, Ellington was incorporated as a town and by 1790, it had 1,056 residents, 2 of which were enslaved, and 15 were free people of color (US Census 1908; Barry 1985; Connecticut 2021a). On January 9, 1788, Connecticut ratified the U.S. Constitution to become the fifth state (Van Dusen 1961).

Nineteenth Century through the Twenty-first Century

In the early nineteenth century, Ellington was firmly a small agricultural settlement. Unlike neighboring towns, Ellington did not experience early industrialization along its waterways. As the century progressed, the town's population was slow to grow, and it did not develop any particular industries despite the arrival of the railroad. The town was described in 1814 as having "twenty dwelling houses, two stores, three taverns, a blacksmith, a shoemaker, two cider-brandy stills and a gin still" (Cole 1888). Distilling gin became an increasingly important economic activity in town and by 1820, an estimated quarter of agricultural land produced rye for the industry (Cole 1888). Liquor and spirit production began to decline around 1840 as tobacco cultivation grew in popularity. The main village in Ellington became the site of the training ground for the 22nd Regiment Connecticut Militia. In 1844, the Hartford & Springfield Railroad was built through Ellington and to the west of Somers through Enfield on its way to the Massachusetts border (Turner and Jacobus 1989). In contrast to many other municipalities in Connecticut, access to the railroad did not provide a significant economic boost. In 1860, Ellington maintained a population of 1,510 residents and during the Civil War (1861-1865) 143 men were credited to the town and served in the Union military (Hines 2002). By the end of the century the principal industry in Ellington remained agriculture, supplemented by a woolen mill (Connecticut 1890). In Ellington, the area around Crystal Lake in the eastern portion of town began to gain popularity as a resort area, with several prominent families residing by the lake. This led to some population fluctuations and by 1890 Ellington maintained 1,539 residents (Connecticut 2021b).

During the twentieth century, the Town of Ellington transitioned from an agricultural center to a rural residential community and by 1910 it had a population of 1,999 residents (Connecticut 2022c). At that time, the principal industries in town were agriculture and wool manufacturing (Connecticut 1910). By 1920, shade tobacco comprised a significant portion of the crops cultivated in town, and it became extremely profitable. Despite the cultivation of this lucrative crop, Ellington continued to develop slowly until approximately the 1950s. During the middle of the century, Connecticut experienced growth

reflecting the postwar adoption of the automobile and the subsequent suburban residential development trend, as well as the construction of highways. Because of this suburbanization trend, the population jumped. In 1950, Ellington had 3,099 residents and by 1970, its population more than doubled to 7,703 inhabitants (Connecticut 2021c, 2021d). As of 2021, Ellington had a population of 16,170 and an economy firmly based in agriculture with the town's largest employer being Oakridge Dairy, which is the largest dairy farm in the state (Connecticut 2020, AdvanceCT and CTData Collaborative 2021). Today, town officials describe Ellington as a rural residential community and the town is characterized by minimal commercial and industrial development (Ellington 2019).

Table 1: Population of Ellington, Tolland County, Connecticut 1800-2020 (Connecticut 2022a-d)

Town	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
Ellington, Tolland County	1,056	1,209	1,344	1,196	1,455	1,356	1,399	1,510	1,452	1,569	1,539	1,829
	1910	**1920**	**1930**	**1940**	**1950**	**1960**	**1970**	**1980**	**1990**	**2000**	**2010**	**2020**
	1,999	2,127	2,253	2,479	3,099	5,580	7,707	9,711	11,197	12,921	15,602	16,426

History of the Project Area

The proposed Community Power Group Solar Project is located at 24 Middle Road, on the south side of the road, in the Town of Ellington, in Tolland County, Connecticut. The parcel is currently an agricultural field which was been actively farmed since European settlement. The project area is surrounded to the east and south by other agricultural fields, woodland to the west, and residential homes between the parcel and Middle Road to the north. The southwest portion of the parcel abuts Pinney Brook. The 1857 Tolland County map of the Town of Ellington depicts the project area as undeveloped land, presumably used for agricultural purposes, west of Pinney Street and south of Middle Road (Figure 4). Similarly, the 1869 Beers *Atlas* of Ellington depicts the project area as cleared and presumably used for agricultural purposes. The area had not changed to any degree and there are no homes depicted in the immediate vicinity (Figure 5).

Photographs from a 1934 Aerial Survey document the project area as agricultural fields with Pinney Brook running along the southwestern corner of the parcel. All surrounding properties appear to be also used for agricultural purposes and there are no homes near the project parcel (Figure 6). Aerial photos taken in 1951 by the U.S. Department of Agriculture document a landscape that had not changed significantly since 1934. The project area and surrounding lots remain cleared and used for agricultural purposes. There are no new homes constructed in the vicinity and there is no real increase in wooded areas, except to the north and west of the project area (Figure 7). The same is true for aerial photos taken in 1970 which document an area that remained cleared and used for agricultural purposes (Figure 8). An aerial photograph taken in 1995 (Figure 9) demonstrates that the project area had not changed from earlier aerial photographs or historical maps. The parcel remained remarkably consistent and unimpacted over the years (Figure 10).

Conclusions

The historical investigation of the proposed Community Power Group Solar Project indicates that the location of the solar facility is unlikely to be associated with any significant historical resources. Due to the landscape mainly consisting of forested land and agricultural fields, there is the possibility of encountering remains of outbuildings, stonewalls, or other evidence of historic farming. The historical record does not indicate that the corridor impacts the locations of any known historical residences or associated archaeological deposits that would be considered historically significant.

CHAPTER V
PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archaeological research completed within the vicinity of the project area in Ellington, Connecticut. This discussion provides the comparative data necessary for assessing the results of the current Phase IA cultural resources assessment survey, and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the project area are taken into consideration. Specifically, this chapter reviews previously identified archaeological sites and National/State Register of Historic Places properties situated in the project region (Figures 11 and 12). The discussions presented below are based on information currently on file at the Connecticut State Historic Preservation Office (CT-SHPO) in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during this investigation. Both the quantity and quality of the information contained in the original cultural resources survey reports and State of Connecticut archaeological site forms are reflected below.

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

A review of data currently on file at the CT-SHPO, as well as the electronic site files maintained by Heritage revealed no previously identified archaeological sites situated within 1.6 km (1 mi) of the project area. However, the Ellington Center Historic District and the Knesseth Israel Synagogue are both located within 1.6 km (1 mi) of the project area and they are discussed below.

Ellington Center Historic District

The Ellington Center Historic District was listed to the National Register of Historic Places (NRHP) on November 15, 1990 (Figure 12). This historic district encompasses 80 acres of land, and at the time of its listing to the NRHP, it encompass over 100 contributing buildings, three contributing sites, and two contributing objects. The Ellington Center Historic District is considered significant for architectural styles, which include Colonial Revival, Greek Revival, and Federal. The southern portion of the Ellington Center Historic District is situated well enough away from the project area; it's viewshed will not be impacted by the proposed construction due to intervening vegetation and topographic relief changes.

Knesseth Israel Synagogue

The Knesseth Israel Synagogue is also known as the Ellington Shul (Figure 12). This early twentieth century Colonial Revival building was listed to the NRHP in 1995. The one-story white frame building is located at 236 Pinney Street in Ellington, Connecticut and is considered significant for its architecture and it status as a good example of a rural synagogue with a hipped-roof Colonial Revival design. The Knesseth Israel Synagogue is located approximately 500 m (1,640 feet) to the northeast the project area; due to the presence of intervening vegetation and topographic relief, the viewshed of the NRHP property will not be altered by the proposed construction.

CHAPTER VI
METHODS

Introduction

This chapter describes the research design and field methodology used to complete the Phase IA cultural resources assessment survey of the project parcel in Ellington, Connecticut. The following tasks were completed during this investigation: 1) study of the region's prehistory, history, and natural setting; 2) a literature search to identify and discuss previously recorded cultural resources in the area encompassing the project parcel; 3) a review of historical maps, topographic quadrangles, and aerial imagery depicting the project parcel in order to identify potential historical resources and/or areas of past disturbance; and 4) pedestrian survey and photo-documentation of the project parcel in order to determine its archaeological sensitivity. These methods are in keeping with those required by the Connecticut State Historic Preservation Office in the document entitled: *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987).

Research Framework

The current Phase IA cultural resources assessment survey was designed to identify and assess the archaeological sensitivity of the project areas, as well as to visually examine the project items and record any previously unidentified cultural resources during pedestrian survey. The undertaking was comprehensive in nature, and project planning took into consideration the distribution of previously recorded cultural resources located within the project region, as well as the visual assessment of the project area. The methods used to complete this investigation were designed to provide coverage of all portions of the project area. The fieldwork portion of this undertaking entailed pedestrian survey, photo-documentation, and mapping (see below).

Archival Research & Literature Review

Background research for this project included a review of a variety of historic maps depicting the proposed project area; an examination of USGS 7.5' series topographic quadrangles; an examination of aerial images dating from 1934 through 2019; and a review of all archaeological sites, National and State Register of Historic Places, and inventoried historic standing structures on file with the CT-SHPO, as well as electronic cultural resources data maintained by Heritage. The intent of this review was to identify all previously recorded cultural resources situated within and immediately adjacent to the project area and to provide a natural and cultural context for the project region. This information was used to develop the archaeological context of the project area and to assess its sensitivity with respect to the potential for producing intact cultural resources.

Field Methodology and Data Synthesis

Heritage performed fieldwork for the Phase IA cultural resources assessment survey of the project area with the proposed solar project in Ellington, Connecticut. This included pedestrian survey, photo-documentation, and mapping. During the completion of the pedestrian survey, representatives from Heritage photo-documented all potential areas of impact using digital media.

CHAPTER VII
RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IA cultural resources assessment survey of the project area in Ellington, Connecticut, as well as management recommendations for treatment of the proposed impacted areas associated with the proposed solar facility. As stated in the introductory section of this report, the investigation involved the following tasks: 1) a contextual overview of the region's prehistory, history, and natural setting (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded archaeological and cultural resources in the project region; 3) a review of readily available historical maps and aerial imagery depicting the project area in order to identify potential historical resources and/or areas of past disturbance; 4) pedestrian survey and photo-documentation of the project area to determine its archaeological sensitivity; and 5) preparation of the current Phase IA cultural resources assessment survey report.

Overall Sensitivity of the Proposed Facility

The field data associated with soils, slopes, aspect, distance to water, and previous disturbance collected during the pedestrian survey and presented above was used in conjunction with the analysis of historical maps, aerial images, and data regarding previously identified archaeological sites and National and State Register of Historic Places properties, and inventoried historic standing structures to stratify the proposed project parcel into zones of no/low, moderate, and/or high archaeological sensitivity. In general, historical period archaeological sites are relatively easy to identify on the landscape because the features associated with them tend to be relatively permanent constructions that extend above the ground surface (i.e., stone foundations, pens, wells, privies, etc.). Prehistoric archaeological sites are less often identified during pedestrian survey because they are buried and predicting their locations relies more on the analysis and interpretation of the environmental factors that would have informed Native American site choices.

With respect to the potential for identifying prehistoric archaeological sites, the project area was divided into areas of no/low, moderate, and/or high archaeological potential by analyzing landform types, slope, aspect, soils contained within them, and distance from water. In general, areas located less than 300 m (1,000 ft) from a freshwater source, which contain slopes of less than 8 percent and well-drained soils, possess a high potential for producing prehistoric archaeological deposits. Those areas located between 300 and 600 m (1,000 and 2,000 ft) from a freshwater source and containing well drained soils are considered moderate probability areas. This is in keeping with broadly based interpretations of prehistoric settlement and subsistence models that are supported by decades of previous archaeological research throughout the region. It is also expected that there may be variability of prehistoric site types found in the moderate/high sensitivity zones. For example, large Woodland period village sites and Archaic period seasonal camps may be expected along large river floodplains and near stream/river confluences, while smaller temporary or task specific sites may be expected on level areas with well-drained soils that are situated more than 300 m (1,000 ft) but less than 600 m (2,000 ft) from a water source. Finally, steeply sloping areas, poorly drained soils, or areas of previous disturbance are generally deemed to retain a no/low archaeological sensitivity regarding their potential to contain prehistoric archaeological sites.

In addition, the potential for a given area to yield evidence of historical period archaeological deposits is based not only on the above-defined landscape features but also on the presence or absence of historical period archaeological resources identified during previous archaeological surveys, recorded on historical period maps, or captured in aerial images of the study region. In this case, proposed development areas situated within 100 m (328 ft) of a previously identified historical period archaeological site, a National or State Register of Historic Places district/individually listed property, or an area containing known historical period buildings may be designated a moderate/high archaeological sensitivity area. In contrast, those areas situated over 100 m (328 ft) from any of the above-referenced properties are considered to retain a no/low historical archaeological sensitivity.

Results of Phase IA Survey and Management Recommendations

Heritage personnel conducted a pedestrian survey of the proposed project area in August of 2022. The pedestrian survey was supplemented by mapping and photo-documentation (Figure 13 and Photos 1 through 7). As seen in the attached photos, the project area is mostly characterized by relatively even topography and low slopes. The project area also contains well drained soils, the types of which are typically correlated with prehistoric and historical use and occupation. Elevations in the area range from 77 to 85 m (253 to 279 ft) NGVD. The predominant soil types noted throughout the project parcel include Narragansett and Wapping soils, which are well-drained loamy soils. The project area currently consists of a mixture of cultivated corn fields and wooded areas. The results of the pedestrian survey indicate that the proposed solar array location, as well as the interconnect and access roads, are characterized by low slopes and well-drained soils. As a result the development area has been deemed to possess a moderate/high archaeological sensitivity.

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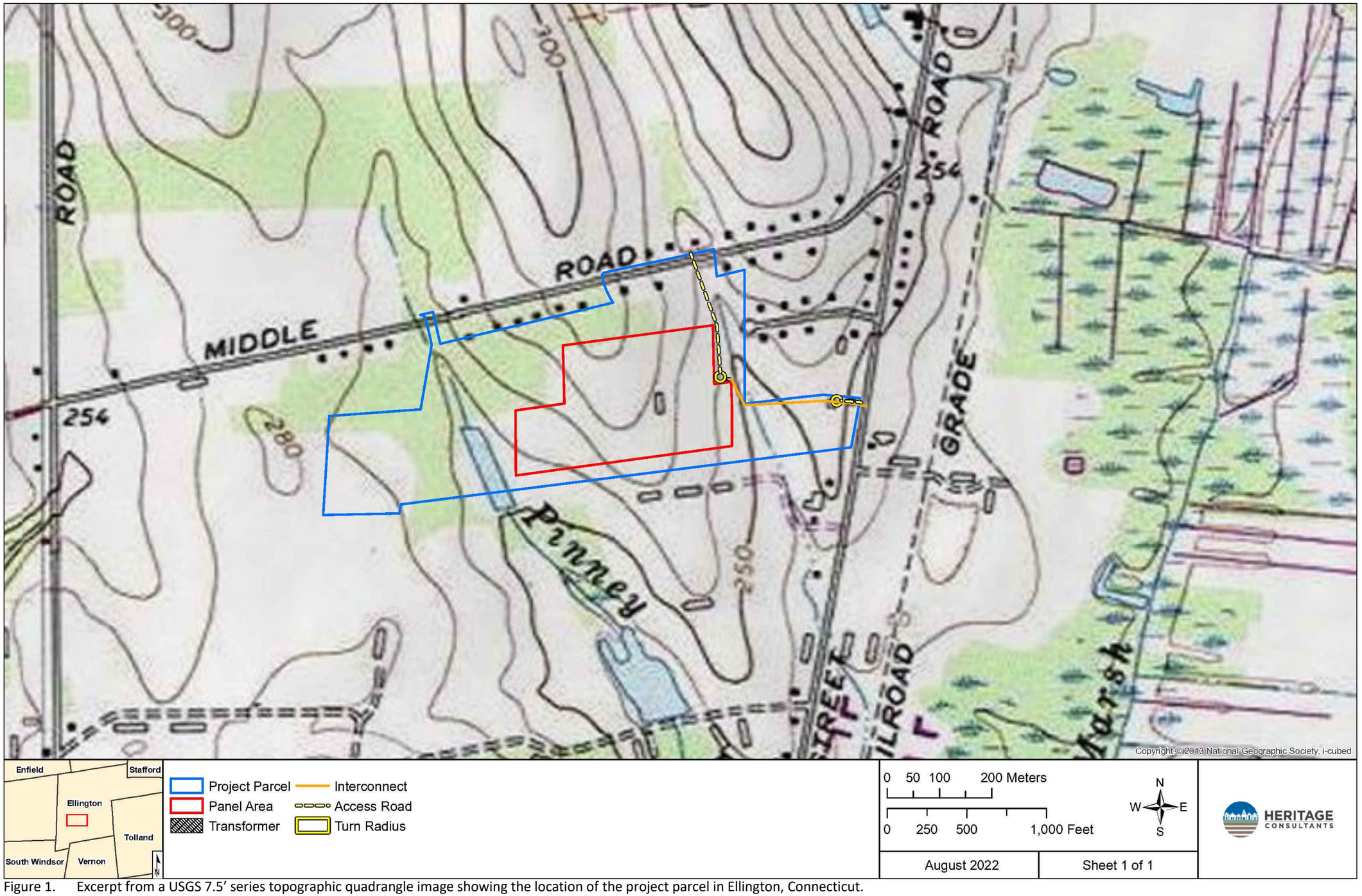

Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project parcel in Ellington, Connecticut.

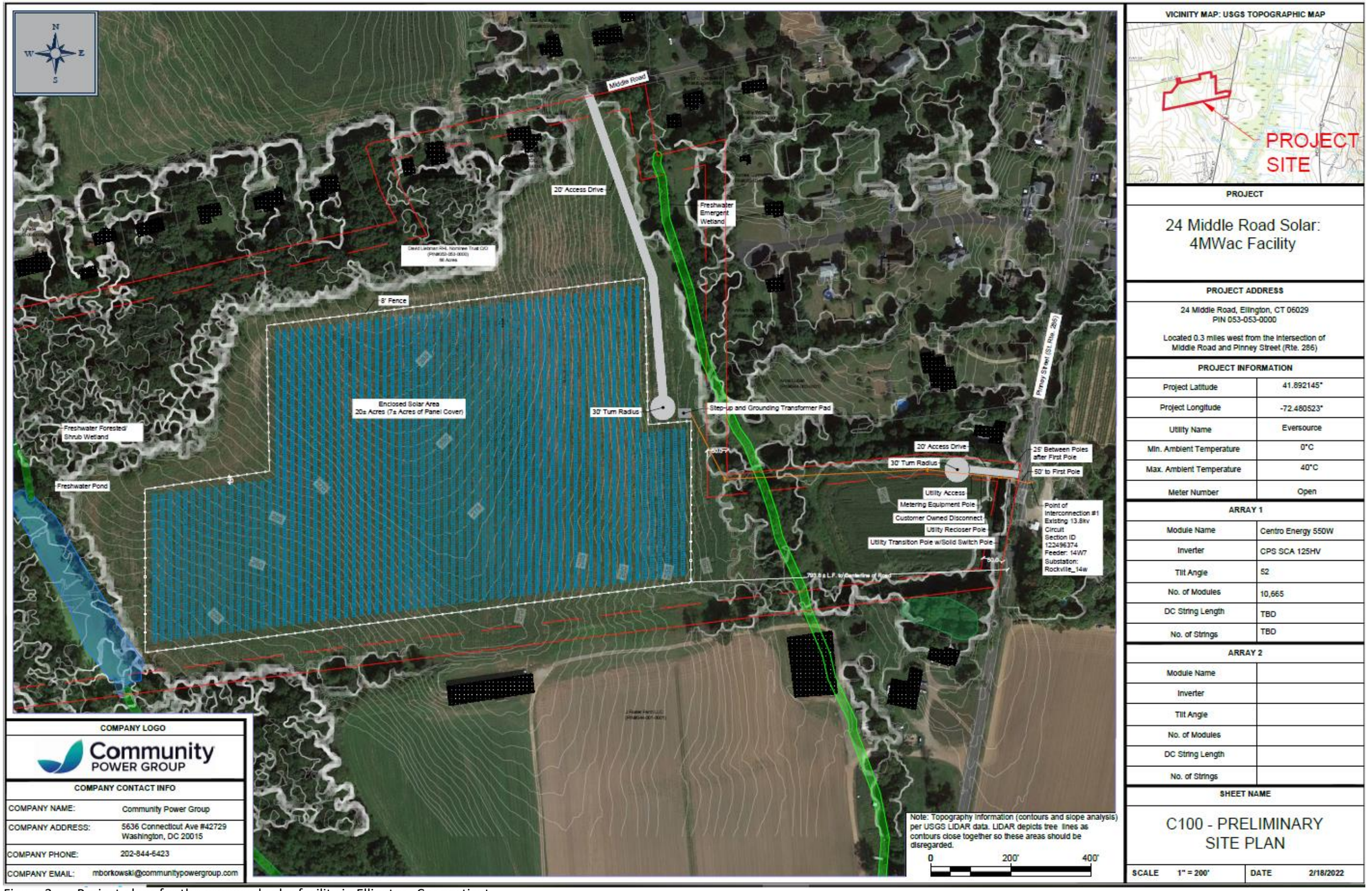

Figure 2. Project plans for the proposed solar facility in Ellington, Connecticut.

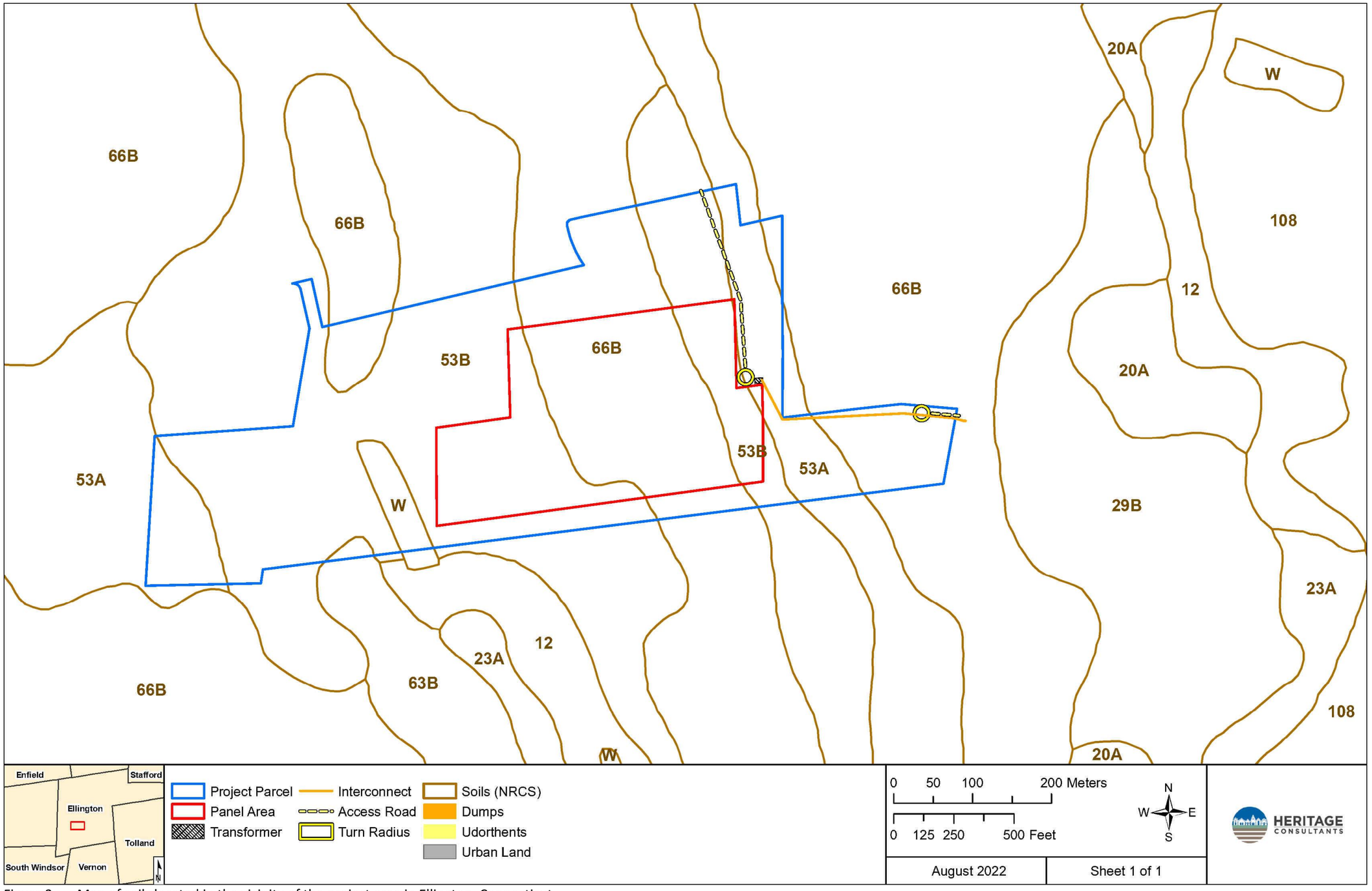

Figure 3. Map of soils located in the vicinity of the project area in Ellington, Connecticut.

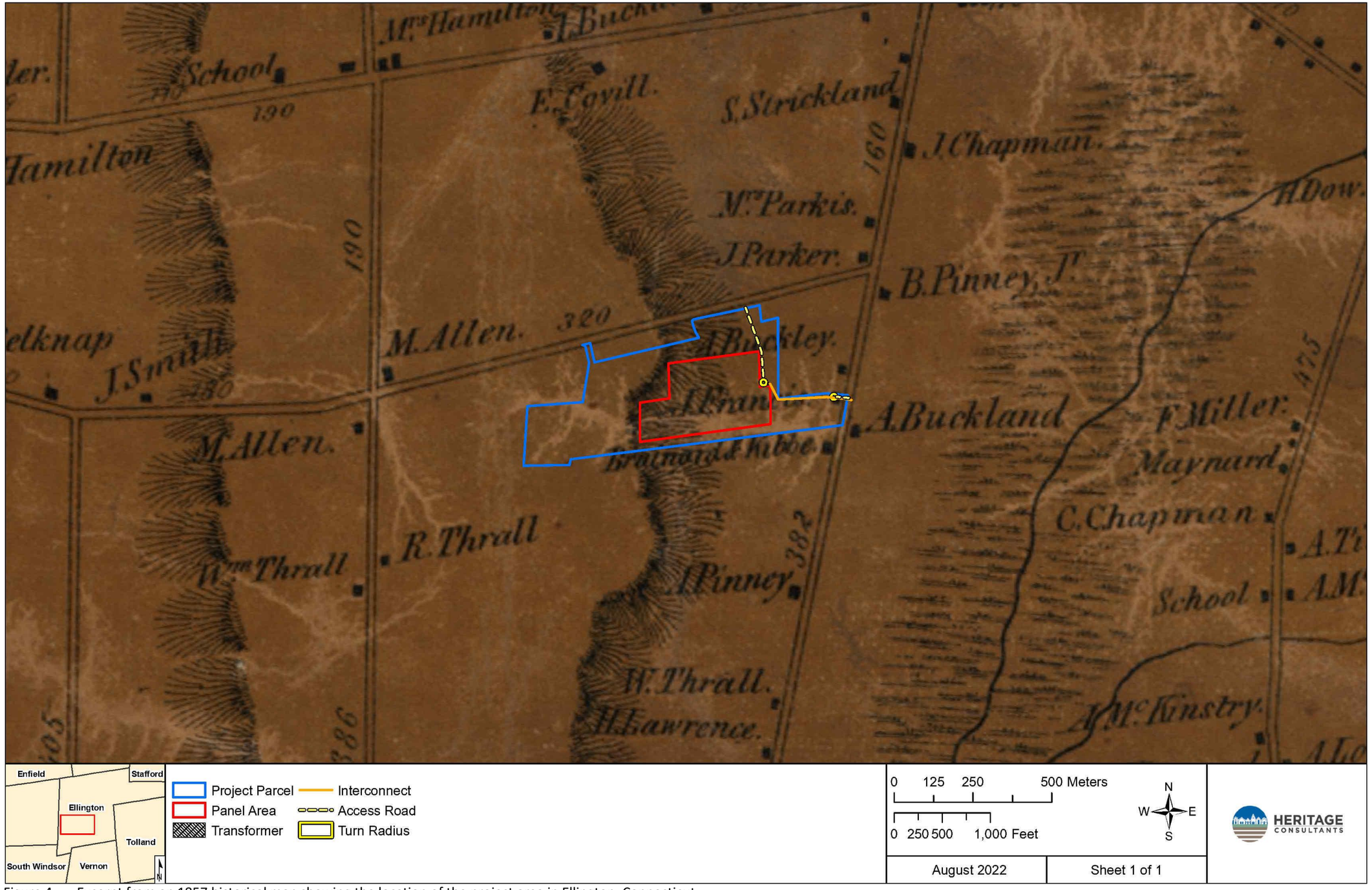

Figure 4. Excerpt from an 1857 historical map showing the location of the project area in Ellington, Connecticut.

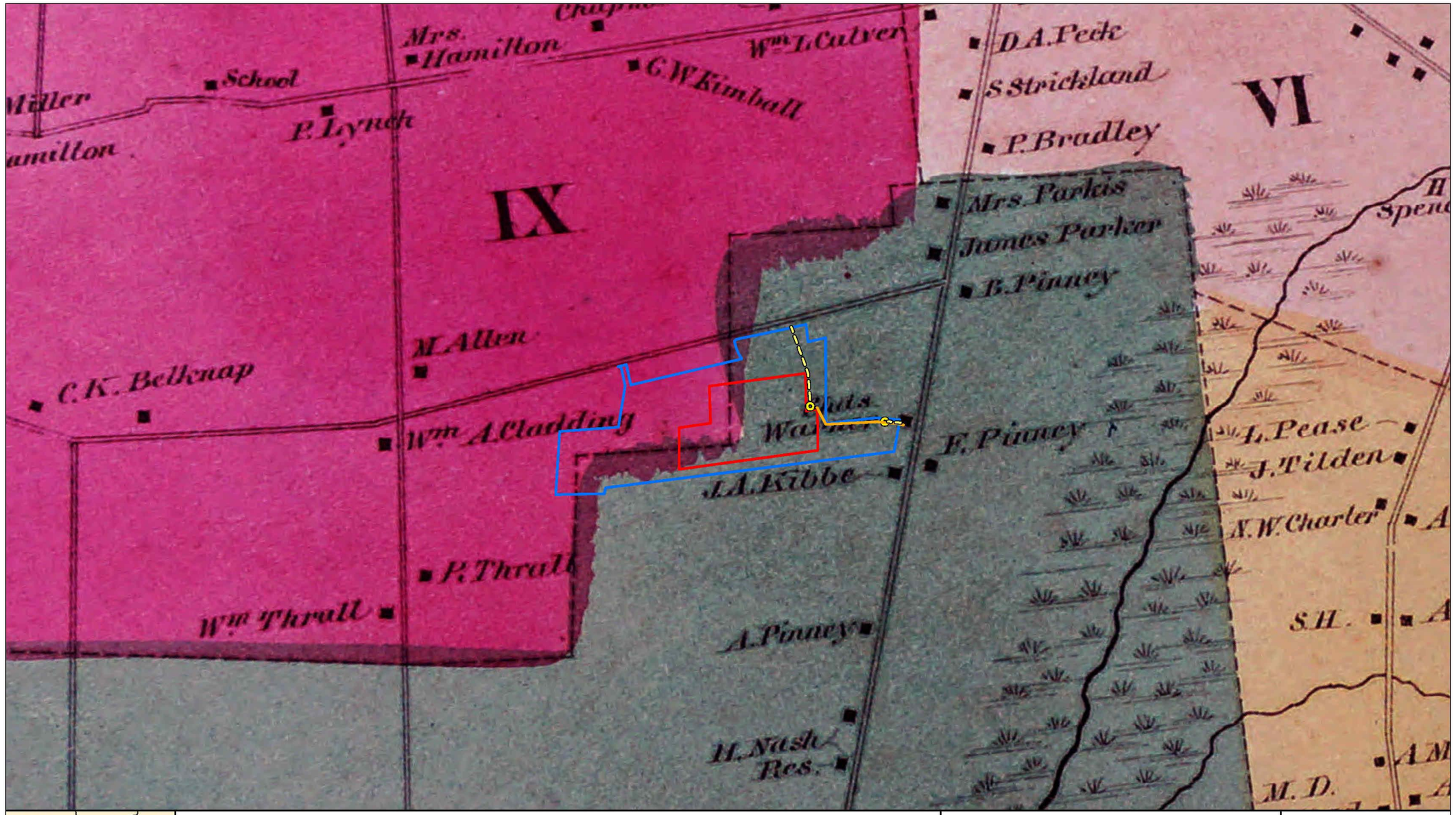

Figure 5. Excerpt from an 1869 historical map showing the location of the project area in Ellington, Connecticut.

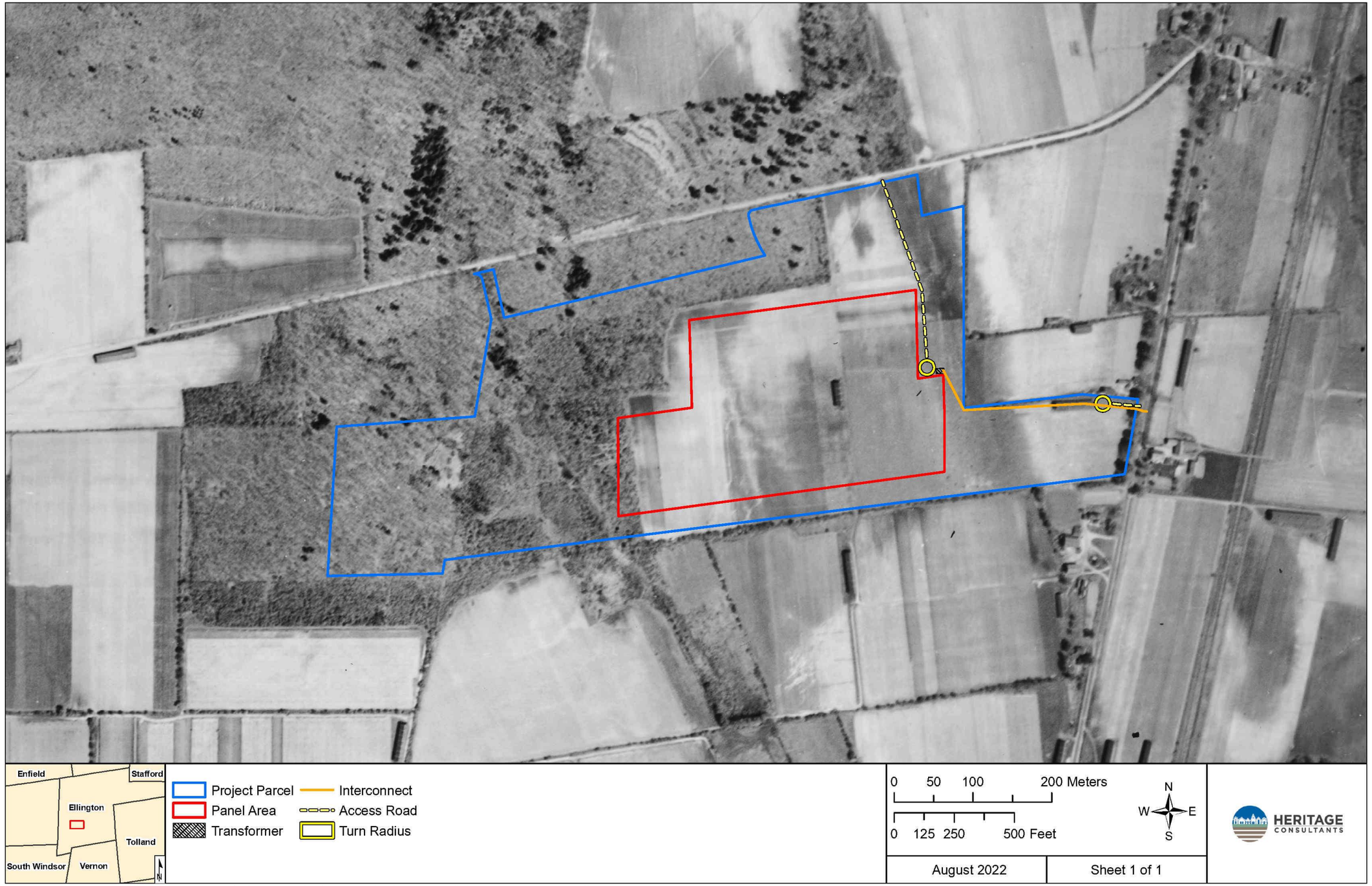

Figure 6. Excerpt from a 1934 aerial photograph showing the location of the project area in Ellington, Connecticut.

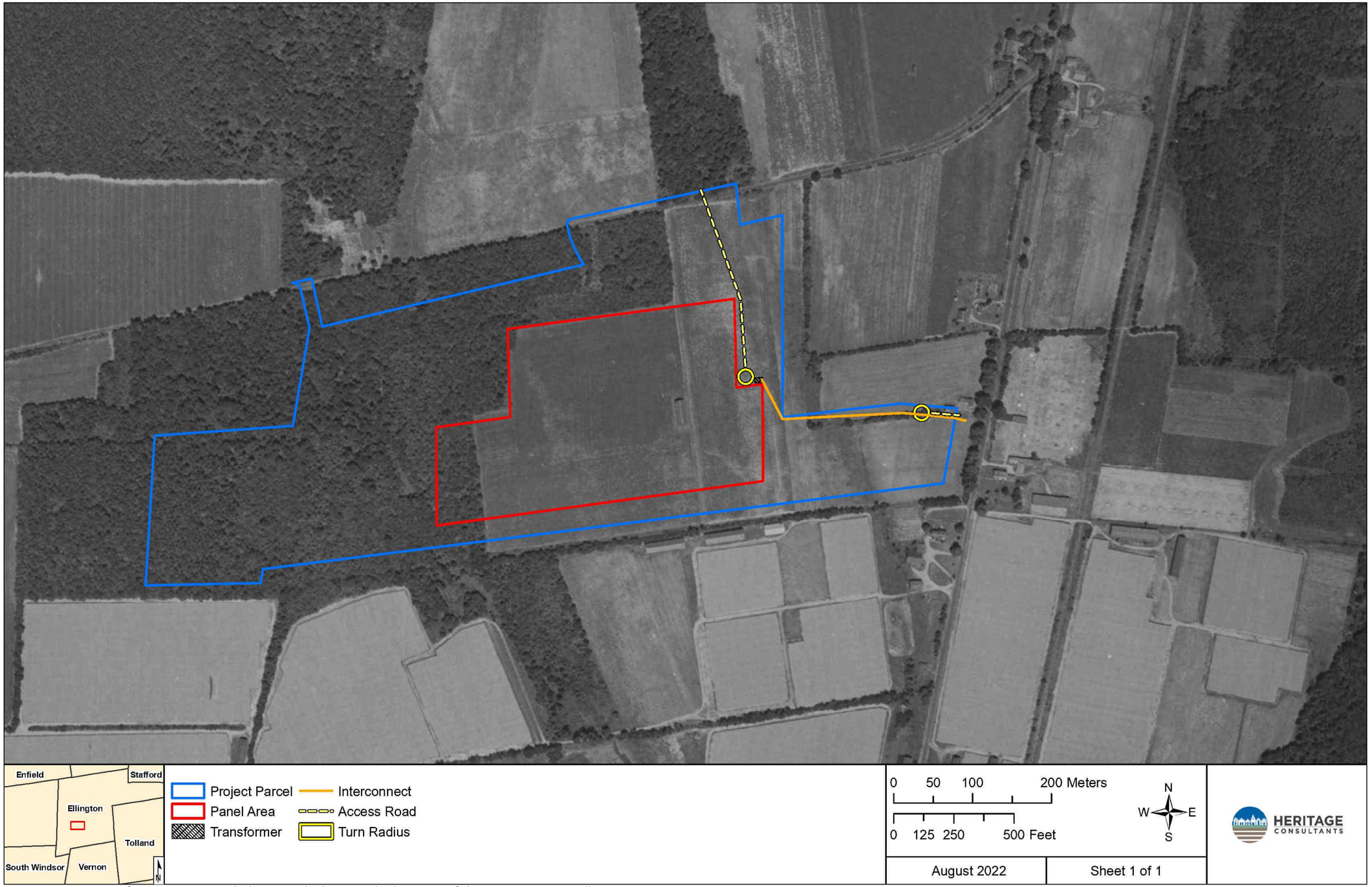

Figure 7. Excerpt from a 1951 aerial photograph showing the location of the project area in Ellington, Connecticut.

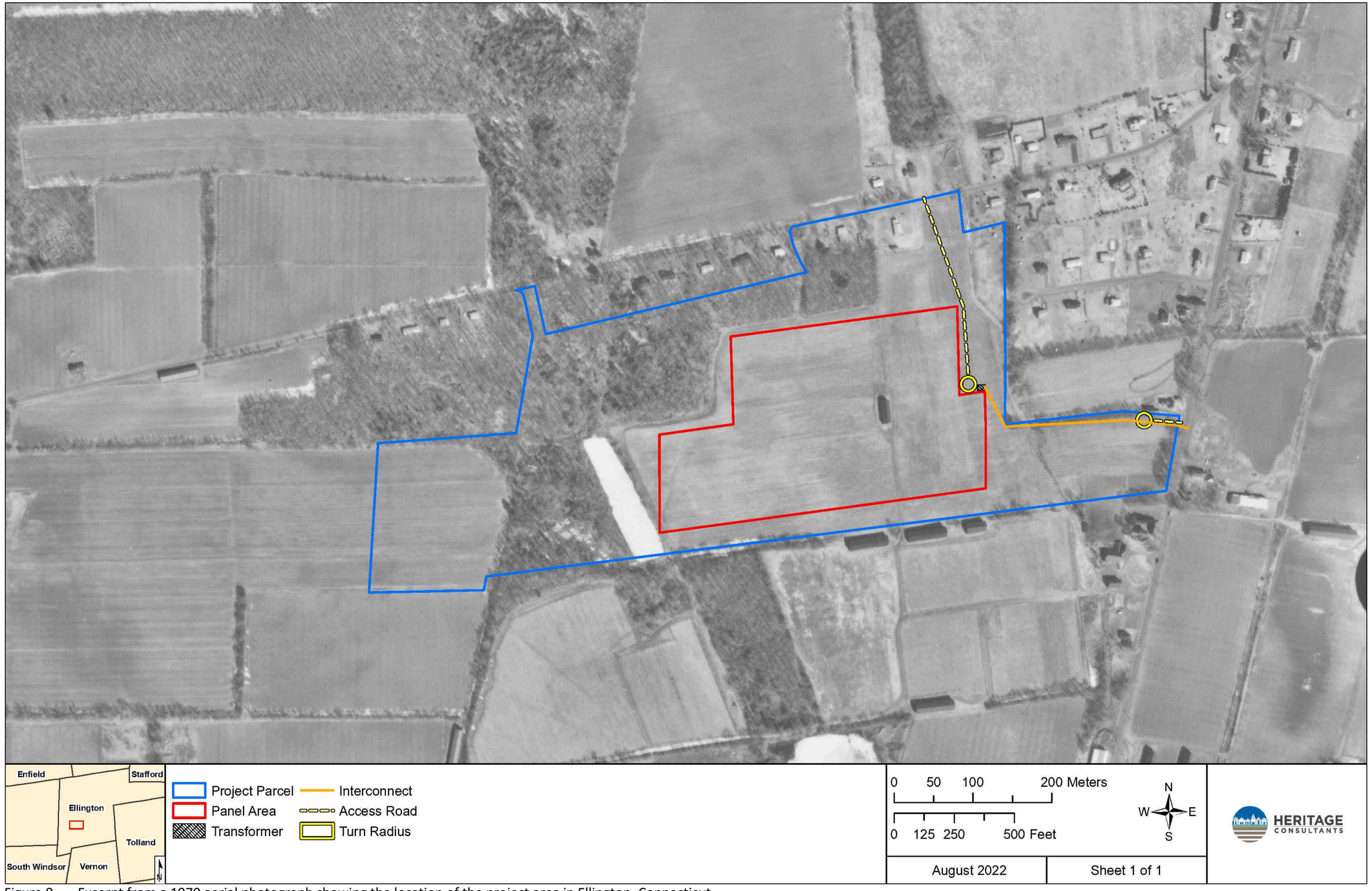

Figure 8. Excerpt from a 1970 aerial photograph showing the location of the project area in Ellington, Connecticut.

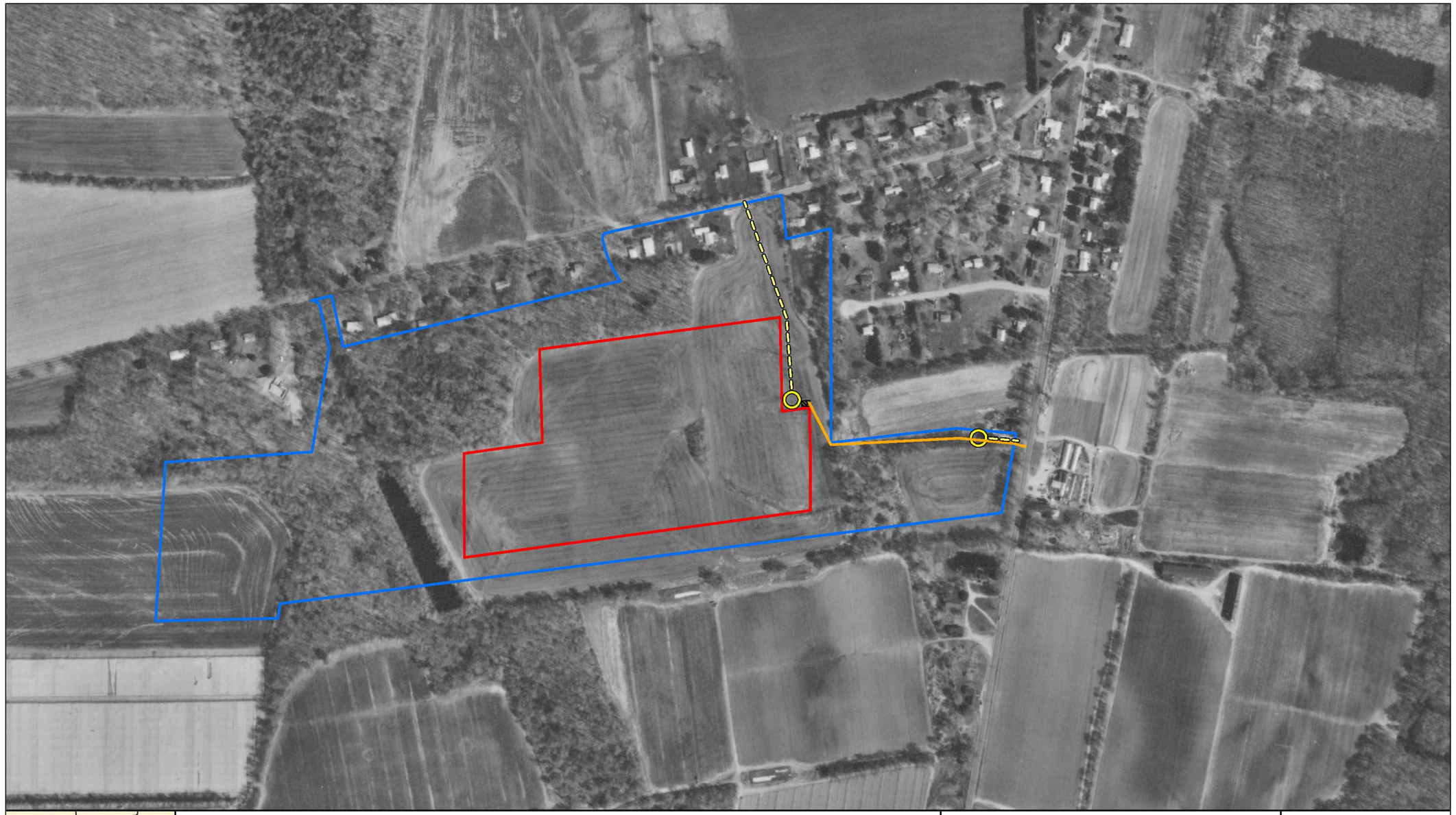

Figure 9. Excerpt from a 1995 aerial photograph showing the location of the project area in Ellington, Connecticut.

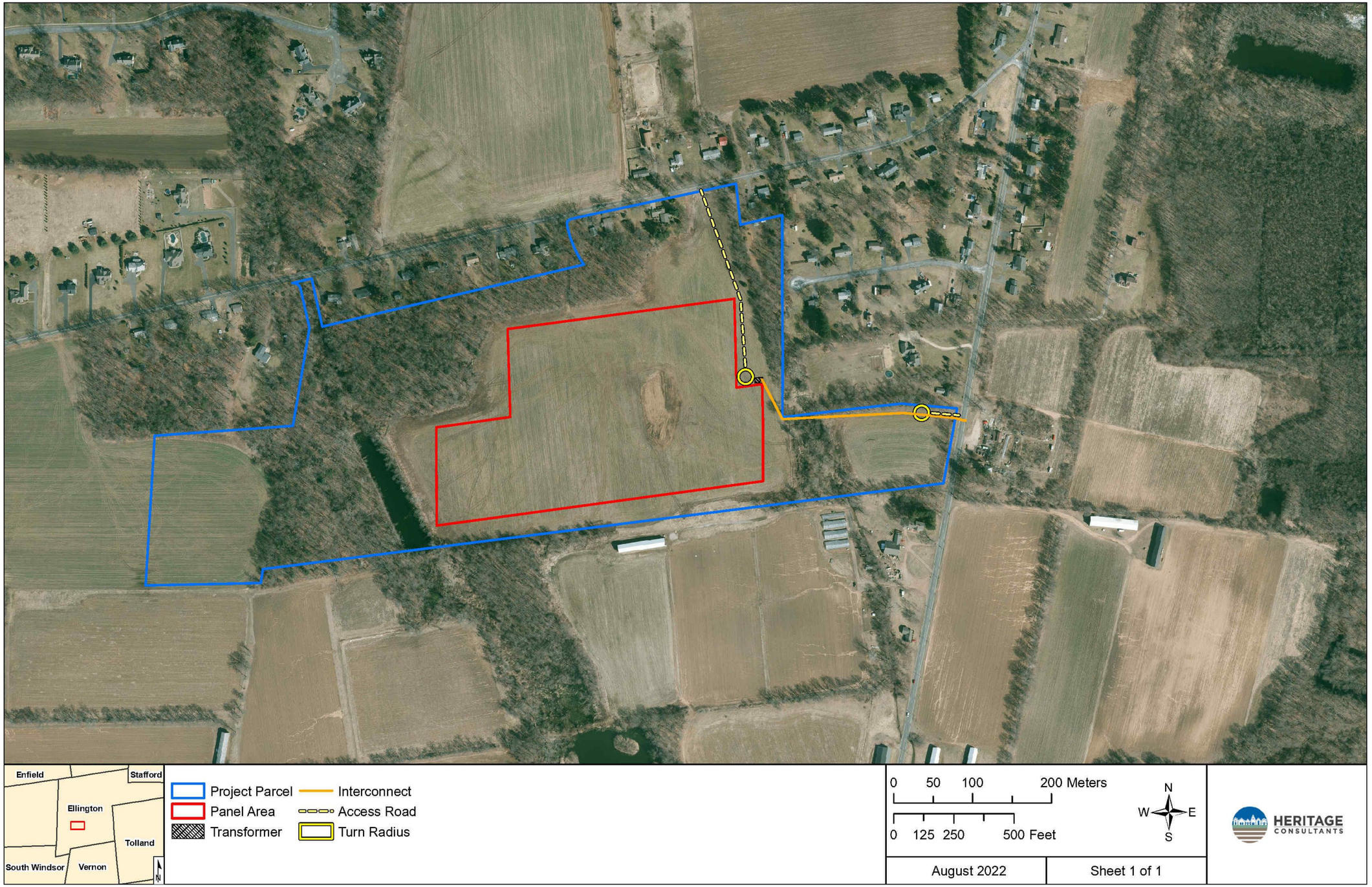

Figure 10. Excerpt from a 2019 aerial photograph showing the location of the project area in Ellington, Connecticut.

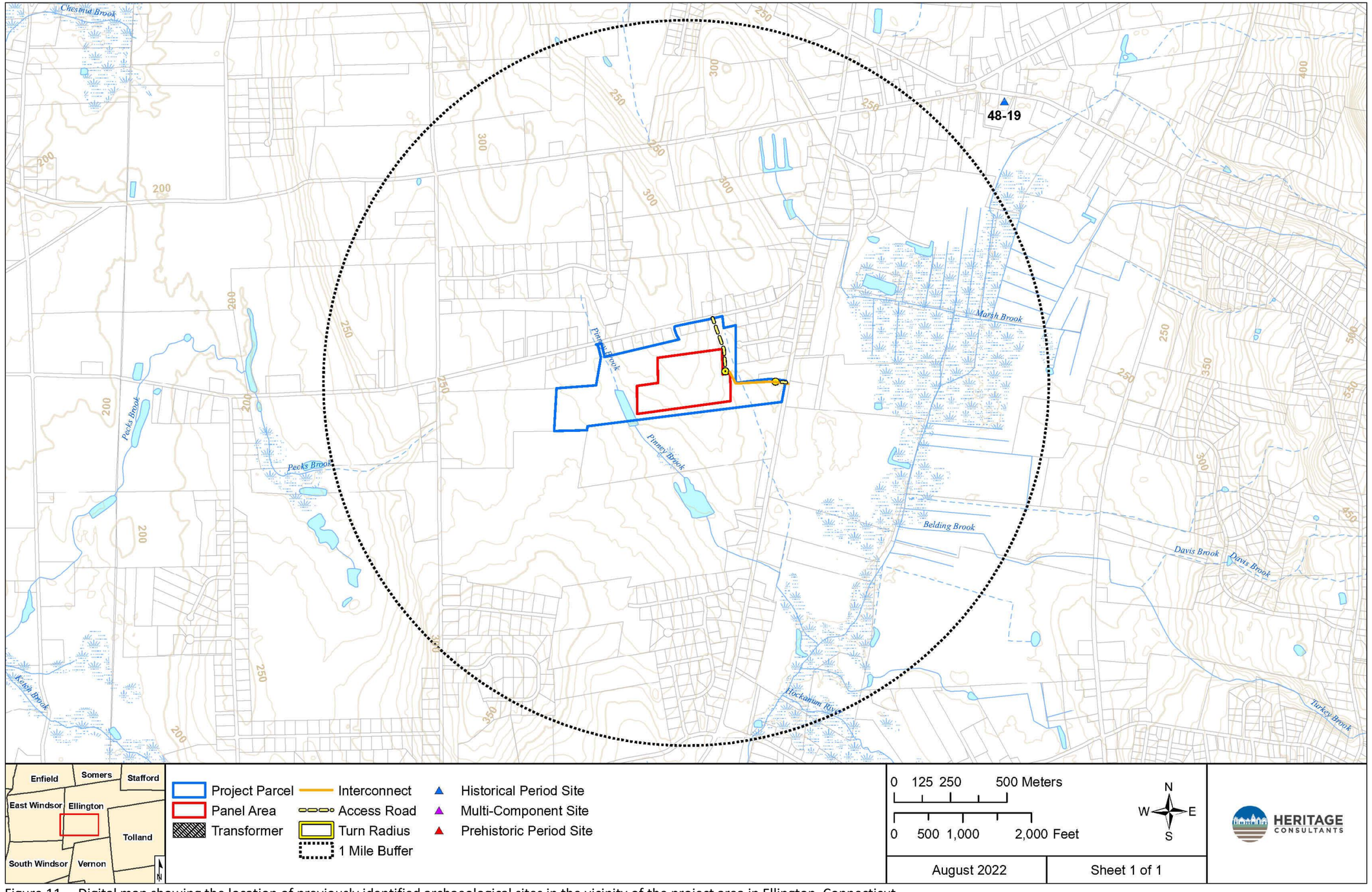

Figure 11. Digital map showing the location of previously identified archaeological sites in the vicinity of the project area in Ellington, Connecticut.

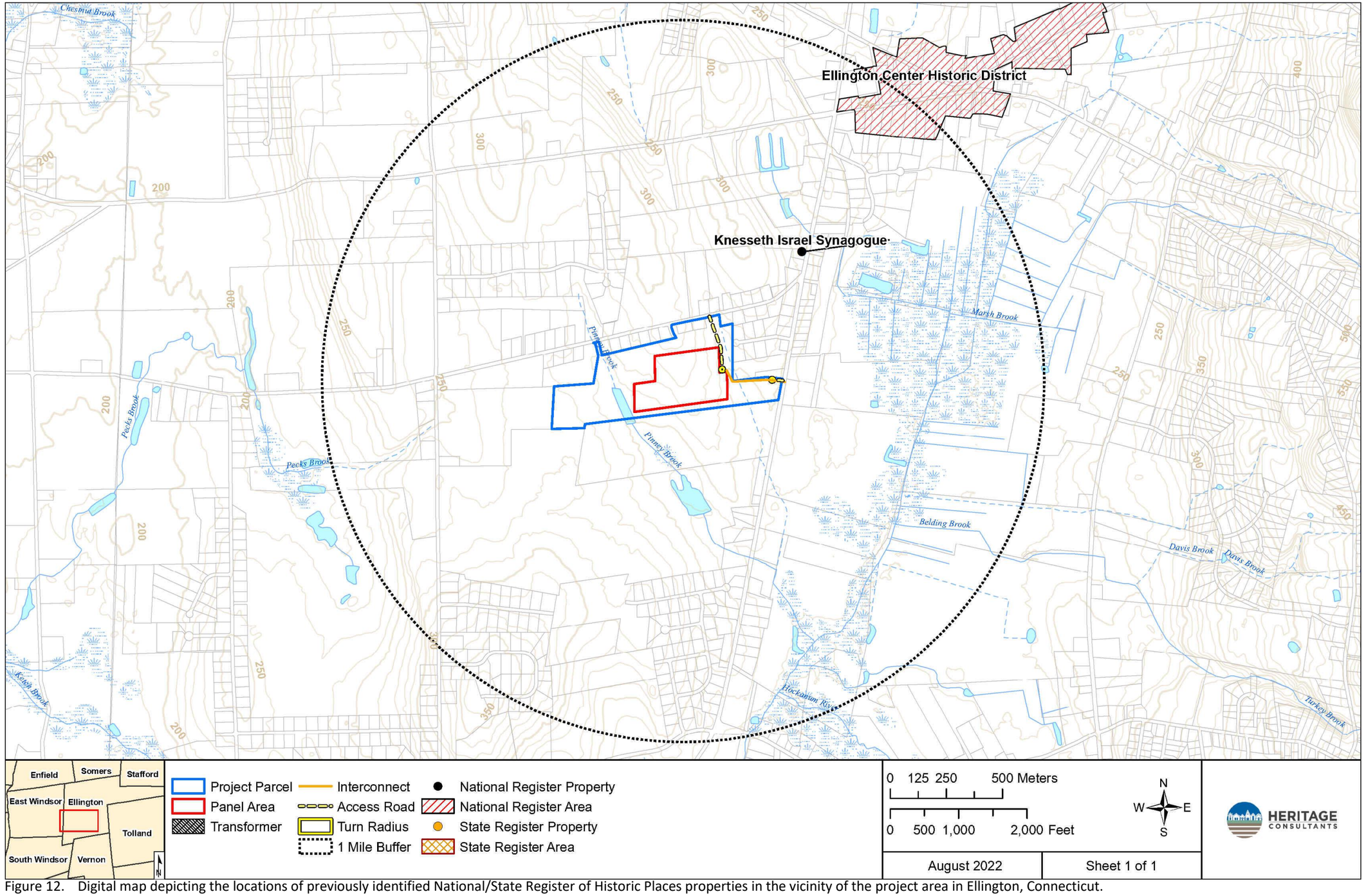

Figure 12. Digital map depicting the locations of previously identified National/State Register of Historic Places properties in the vicinity of the project area in Ellington, Connecticut.

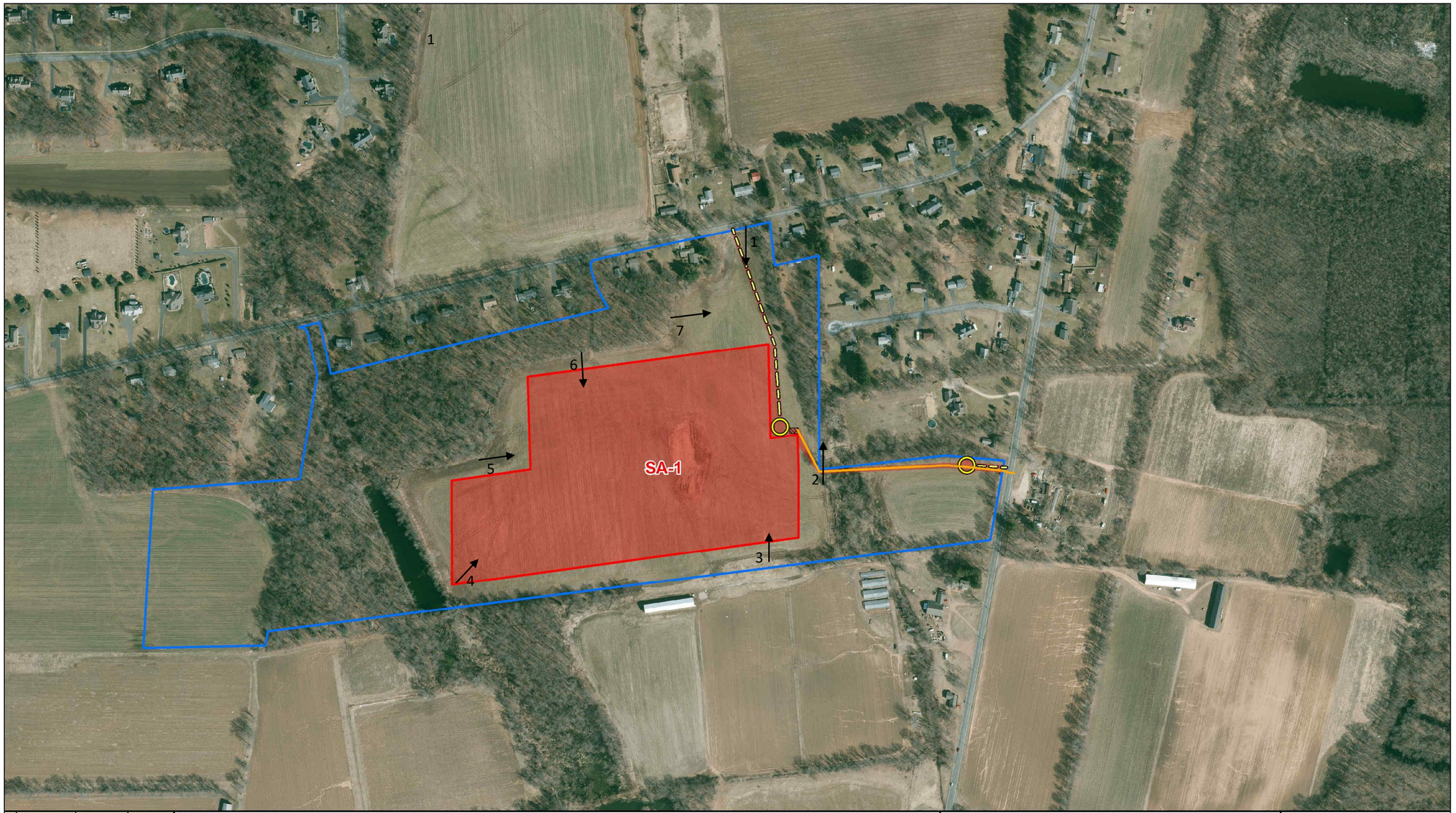

Figure 13. Excerpt from a 2019 aerial photograph showing areas of no/low and moderate/high sensitivity areas and photographs taken with directional arrows within the project area in Ellington, Connecticut.

Photo 1. Overview photo taken from northern boundary of project parcel along proposed access road. Photo taken facing south.

Photo 2. Overview photo taken along proposed interconnect of project parcel. Photo taken facing north.

Photo 3. Overview photo from the southeastern corner of project area. Photo taken facing north.

Photo 4. Overview photo from the southwestern corner of the project area. Photo taken facing northeast.

Photo 5. Overview photo from the western boundary of the project area. Photo taken facing east.

Photo 6. Overview photo from the northern boundary of the project area. Photo taken facing south.

Photo 7. Overview photo from the northern boundary of the project area. Photo taken facing east.

October 25, 2022

Mr. David George
Heritage Consultants, LLC
830 Berlin Turnpike
Berlin, CT 06057
(sent via email only to dgeorge@heritage-consultants.com)

Subject: Phase IA Cultural Resources Assessment of a Proposed Solar Development
24 Middle Road
Ellington, Connecticut

Dear Mr. George:

The State Historic Preservation Office (SHPO) received the report prepared by Heritage Consultants, LLC (Heritage) titled *Phase IA Cultural Resources Assessment Survey of the Proposed Community Power Group 4MWac Solar Project at 24 Middle Road in Ellington, Connecticut*, dated August 2022. SHPO understands that the proposed project consists of the construction of a 4MWac solar array within a project area measuring approximately 20 acres in size. The proposed solar development includes the construction of two access roads, two turn radii, an interconnection route, and related infrastructure components. The proposed activities are under the jurisdiction of the Connecticut Siting Council and are subject to review by this office pursuant to the Connecticut Environmental Policy Act. The submitted technical report is comprehensive and meets the standards set forth in the *Environmental Review Primer for Connecticut's Archaeological Resources.*

The Phase IA assessment survey included a contextual overview of the region containing the project area, a review of previously identified cultural resources, a review of historical maps and aerial imagery, and a pedestrian survey of the project area. During the assessment survey, Heritage did not identify any previously recorded archaeological sites within one mile of the proposed project area. The report indicated the presence of two properties listed on the National Register of Historic Places (NRHP) within one mile of the project area, the Ellington Center Historic District and the Knesseth Israel Synagogue. SHPO concurs with Heritage that the proposed activities will not impact these two NRHP listed properties. The archaeological assessment survey concluded that the project parcel contained environmental characteristics often associated with intact archaeological deposits. A subsequent pedestrian survey of the property affirmed this conclusion; therefore, the project area was assessed as retaining a moderate/high potential to contain intact archaeological deposits. Based on the information provided to our office, SHPO requests that a professional archaeological reconnaissance survey be completed prior to construction to ensure due diligence. All work should conform with our *Environmental Review Primer for Connecticut's Archaeological Resources* and no construction or other project-related ground disturbance should be initiated until SHPO has had an opportunity to review and comment upon the requested survey.

SHPO appreciates the opportunity to comment upon this project and we look forward to continuing consultation. Do not hesitate to contact Cory Atkinson, Staff Archaeologist and Environmental Reviewer, for additional information at (860) 500-2458 or cory.atkinson@ct.gov.

Sincerely,

Jonathan Kinney
State Historic Preservation Officer

cc: Boots, Community Power Group (via email)
Young, Community Power Group (via email)