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PHASE IB CULTURAL RESOURCES RECONNAISSANCE SURVEY
FOR THE PROPOSED WINDSOR SOLAR ONE CENTER
AT 445 RIVER STREET IN WINDSOR, CONNECTICUT

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ABSTRACT

This report presents the results of the Phase IB Cultural Resources Reconnaissance survey of the proposed Windsor Solar One Center Project, which will be located at 445 River Street in Windsor, Connecticut. Heritage Consultants, LLC completed a previous Phase IA cultural resources assessment survey of the Facility area and determined that the 18.2 acre proposed development area retained moderate to high sensitivity. The Phase IB Cultural Reconnaissance Survey was completed in January of 2024. A total of 81 of 81 (100 percent) planned shovel tests, as well as 28 radial shovel tests were excavated across the proposed development area. The survey resulted in the collection of a field scatter of post-European Contact period material and three precontact era loci. The post-European Contact period artifacts were yielded from primarily disturbed context. Thus, these deposits appear to represent field scatter and do not retain research potential of the qualities of significance for listing in the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of the recovered post-European Contact period component associated with the proposed development area is recommended.

The concentration of artifacts designated as Locus 1 located in the northwest corner of the Facility area contained materials dating from the precontact era and the post-European Contact period. The artifact assemblage consisted of a single quartz flake fragment, a chert flake fragment, and a piece of quartzite angular debris, as well as an iron hook fragment. In addition, excavation of T1, P1 led to the identification of a Buried A-Horizon, as well as an oval stain inundated with charcoal flecking at the B-Horizon interface; it was designated as Feature 1. This component of the site exhibits depositional integrity and retains research potential. In order to avoid any major impacts to Locus 1, the project is currently in redesign to reduce the array avoid the locus. However, in an effort to reduce visual impacts to the surrounding landscape, evergreens will be planted around the Facility's perimeter in this area. Further, to account for any impacts to Locus 1 through the vegetative screening, it is recommended that a shovel test be excavated at each evergreen location prior to planting.

Locus 2 is located in the west-central portion of the development area, approximately 50 meters (164 feet) to the south of Locus 1. It contains a single artifact dating from the post-European Contact period, which is associated with the field scatter identified across the development area, as well as precontact era lithic artifacts. The lithic artifact assemblage consisted of 2 chert biface retouch flake fragments and a single chert biface thinning flake fragment. While Locus 2 has been subject to previous disturbance, intact cultural deposits may be present. As a result, it is recommended that Locus 2 be subjected to Phase II testing and evaluation prior to Facility development.

Finally, Locus 3 is located in the southeastern corner of the Facility area and yielded precontact era artifacts. The artifact assemblage was recovered from a single shovel test pit and consisted of 2 chert flake fragments, 2 pieces of fire cracked rock, a single chert biface retouch flake fragment, and a single chert biface thinning flake. Of these, three (50 percent) artifacts were recovered from the B-Horizon, indicating the presence of intact cultural deposits. Due to its close proximity to previously identified Site 164-79, Locus 3 is likely associated with the Woodland period campsite. Thus, project plans will be altered to ensure that the footprint of the proposed Facility area will not impact Locus 3. Therefore, no additional archaeological examination of Locus 3 is recommended prior to development.

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CHAPTER I

INTRODUCTION

This report presents the results of a Phase IB Cultural Resources Reconnaissance survey of the proposed Windsor Solar One Project (the Project), which will be located at 445 River Street in Windsor, Connecticut (Figure 1). A previous Phase IA cultural assessment survey indicated that the entire 18.2 acre proposed development area retained moderate to high archaeological sensitivity. Vanasse Hangen Brustlin, Inc., (VHB) requested that Heritage Consultants, LLC (Heritage) complete a Phase IB cultural resources reconnaissance survey of the proposed development area prior to Project development. The Phase IB survey was completed by Heritage in January of 2024. 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, Methods, & Results Overview

Once the Project is built it will contain solar arrays, an interconnection route, fencing, an access drive, and associated infrastructure that will impact 18.2 acres of land in Windsor, Connecticut (Figure 2). The development area is situated at elevations ranging from approximately 22 to 26 m (72.2 to 85 ft) NGVD and is bounded by small strips of vegetated and wooded areas to the east, north, and south, heavy residential development to the west and south, and commercial development to the northeast. The Phase IB survey consisted of the archaeological examination of the proposed development area that appeared to retain a moderate to high potential to contain archaeological deposits as determined through a previously completed Phase IA cultural assessment survey. The development area is characterized by gently sloping topography that consists of fallow agricultural fields. The details of the field methods used, as well as the results of the Phase IB survey, are reviewed below.

The examination of the development area was completed through the systematic excavation of shovel test pits spaced at 30 meter (98 foot) intervals located along survey transects positioned 30 meters (98 feet) apart. In the instance that precontact era cultural material was recovered, the find spot was delineated at 7.5 and 15 meters in each cardinal direction to ensure thorough investigation of the area. All shovel tests excavated measured 50 x 50 centimeters (19.4 x 19.4 inches) in size and were excavated until glacially derived C-Horizon soils or immovable objects (boulders, large tree roots) were encountered. The phase IB survey effort resulted in the excavation of 81 of 81 (100 percent) planned shovel tests, as well as 28 radial test pits around artifact findspots. Of these, six yielded precontact era artifacts and seven produced post-European Contact period artifacts. In addition, a shovel test pit situated in the northwestern corner of the development area contained a feature that was inundated with charcoal flecking; it was classified as likely dating from the precontact era. The subsurface testing effort of the development area resulted in the collection of post-European Contact period cultural artifacts, including examples of ceramic sherds, a brick fragment, a machine-cut nail, metal objects, and a piece of coal. These deposits were not found in association with any architectural features and represent field scatter; they do not retain research potential of the qualities of significance for listing in the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4[a-d]). No additional archaeological examination of the post-European Contact period component is recommended.

The precontact era artifact assemblage was collected from three loci, two of which were multicomponent in nature and one that contained only precontact era cultural material; these were

designated as Locus 1, Locus 2, and Locus 3. Due to the close proximity of previously identified Site 164-79, it is possible that the precontact loci may be associated with the previously identified site. Site 164-79, which is also known as the Atkinson Site (Locus 1), is a precontact era camp site that was identified and recorded by Heritage during a Phase IB survey and a subsequent Phase II National Register testing and evaluation in 2020. Given the wide variety of materials and artifacts, as well as the overall integrity of the site, Heritage assessed Site 164-79 as eligible for listing to the National Register of Historic Places under Criterion D of the criteria for evaluation (36 CFR 60.4 [a-d]).

The concentration of artifacts designated as Locus 1 was identified in the northwest corner of the Project area and was originally identified through the recovery of a single quartz flake fragment. In addition, the excavation of Shovel Test T1,P1 led to the identification of a Buried A-Horizon in this area, as well as an oval stain that contained charcoal flecking at the B-Horizon interface; it was designated as Feature 1. Delineation of the Locus 1 area led to the recovery of a chert flake fragment, a piece of quartzite angular debris, and an iron hook fragment that was characterized as a part of the previously mentioned post-European Contact period field scatter present throughout the development area. The lithic artifacts appear to be associated with the intact Buried A-Horizon and Feature 1. It was determined that the precontact era component of Locus 1 may retain depositional integrity and research potential. Thus, it may be eligible for listing on the National Register of Historic Places under applying the criteria for evaluation (36 CFR 60.4 [a-d]). In order to avoid any major impacts to Locus 1, the array area will be reduced in this area to avoid the locus. However, in an effort to reduce visual impacts to the surrounding landscape, evergreens will be planted around the perimeter of the solar center in this area to screen it from the surrounding neighborhood. Heritage recommends that a single shovel test pit be excavated at the location of each evergreen prior to planting to avoid impacts by the vegetative screening.

Locus 2 was located in the western portion of the development area, approximately 50 meters (164 feet) to the south of Locus 1. Examination of the area led to the recovery of 3 chert flakes. While Locus 2 has been subject to previous disturbance, it may contain intact deposits that may be associated with previously identified Site 164-79. This locus is potentially eligible for listing on the National Register of Historic Places under applying the criteria for evaluation (36 CFR 60.4 [a-d]). As a result, it is recommended that Locus 2 be subjected to Phase II testing and evaluation prior to Project construction.

Finally, Locus 3 was identified on the southern border of the development area; it consisted of four chert flakes and two pieces of fire cracked rock (FCR), all of which were recovered from a single test pit. Of these, three (50 percent) artifacts were recovered from the B-Horizon, indicating the presence of intact cultural deposits. Due to its close proximity to Site 164-79, Locus 3 may be associated with that Woodland period campsite. In order to prevent any foreseeable impacts to Locus 3, the Project plans are being altered to avoid this part of the subject parcel. Therefore, although Locus 3 is potentially eligible for listing on the National Register of Historic Places under applying the criteria for evaluation (36 CFR 60.4 [a-d]), no additional archaeological examination of the area is recommended prior to development.

Finally, in addition to the cultural deposits identified during the Phase IB survey, pedestrian survey resulted in the identification of three tobacco barns. The three structures are present on the 1934 aerial photograph, suggesting that their construction predates 1934. All three barns are timber frame construction with a gable roof line and remain in fair condition. The buildings will not be affected by Project construction.

Project Personnel

Key personnel for this investigation included David R. George, M.A., RPA, (Principal Investigator), Brenna Pisanelli, M.A., (Senior Project Manager), Renee Petruzelli, M.A., RPA (Project Manager), Linda Seminario, M.A., (Project Archaeologist), Sam Spitzschuh, B.A, (Field Director), David Naumec, PhD, (Historian), Erica Lang, M.A., (Laboratory Specialist) and Tevin Jourdain, B.A., (GIS Specialist).

CHAPTER II

NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the development parcel in Windsor, Connecticut. Previous archaeological research has documented that specific environmental factors can be associated with both precontact era and post-European Contact 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 study 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 brief summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the project area.

North-Central Lowlands Ecoregion

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

Hydrology of the Study Region

The proposed project parcel is situated within close proximity to several sources of freshwater, including the Farmington River and the Connecticut River. Small, unnamed bodies of water are also nearby. Previously completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for precontact period occupations because they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources.

Soils Comprising the Project Area

Soil formation is the direct result of the interaction of several variables, including climate, vegetation, parent material, time, and organisms present (Gerrard 1981). Once archaeological deposits are buried within the soil, they are subject to many 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 within the Project area. In contrast, acidic soils enhance the preservation of charred plant remains.

The project parcel is characterized by the presence of Windsor soils, which are characterized as very deep excessively drain soils. Windsor soil is generally well correlated with both post-European Contact period and precontact era archaeological site locations. A descriptive profile for Windsor soils is presented below; it was gathered from the National Resources Conservation Service.

Windsor Soils (Soil Codes 36B)

The Windsor series consists of very deep, excessively drained soils formed in sandy outwash or eolian deposits. They are nearly level through very steep soils on glaciofluvial landforms. Slope ranges from 0 to 60 percent. A typical profile associated with Windsor soils is as follows: **Oe**--0 to 3 cm; black (10YR 2/1) moderately decomposed forest plant material; many very fine and fine roots; very strongly acid; abrupt smooth boundary; **A**--3 to 8 cm; very dark grayish brown (10YR 3/2) loamy sand; weak medium granular structure; very friable; many very fine and fine roots; strongly acid; abrupt wavy boundary; **Bw1**--8 to 23 cm; strong brown (7.5YR 5/6) loamy sand; very weak fine granular structure; very friable; many fine and medium roots; strongly acid; gradual wavy boundary; **Bw2**--23 to 53 cm; yellowish brown (10YR 5/6) loamy sand; very weak fine granular structure; very friable; common fine and medium roots; strongly acid; gradual wavy boundary; **Bw3**--53 to 64 cm; light yellowish brown (10YR 6/4) sand; single grain; loose; few coarse roots; strongly acid; clear wavy boundary; and **C**--64 to 165 cm; pale brown (10YR 6/3) and light brownish gray (10YR 6/2) sand; single grain; loose; few coarse roots; strongly acid.

Summary

A review of mapping, geological data, ecological conditions, soils, slopes, and proximity to freshwater suggests that portions of the Project area appear to be amenable to both precontact era and post-European Contact period occupations. This includes areas of low to moderate slopes with well-drained soil located near freshwater sources. The types of Native American sites that may be contained in these areas include task specific, temporary, or seasonal base camps, which may include areas of lithic tool manufacturing, hearths, post-molds, and storage pits.

CHAPTER III

PRECONTACT ERA 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 precontact period 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 precontact period 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 precontact 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 precontact 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 precontact period of Connecticut. The remainder of this chapter provides an overview of the precontact 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., 13,000 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 over 50 surface finds of Paleo-Indian projectile points throughout the State of Connecticut (Bellantoni 1995), 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; Singer 2017a; 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 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. More recently, the site has undergone re-investigation by Singer (2017a and 2017b), who has determined that most tools and debitage are exotic and were quarried directly from the Hudson River Valley. Recent research has focused on task-specific loci at the Templeton Site, particularly the production of numerous Michaud-Neponset projectile points, as identified through remnant channel flakes.

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, 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.

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 (Leslie et al. 2020). 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.

Excavations at the Brian D. Jones Site revealed 44 soil anomalies, 27 of which were characterized as cultural features used as hearths and post holes, among other uses. One hearth has been dated thus far ($10,520 \pm 30$ 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 at least two temporally discrete Paleo-Indian occupations. The recovered lithic artifacts are fashioned from Normanskill chert, Hardyston jasper, Jefferson/Mount Jasper rhyolite, chalcedony, siltstone, and quartz (Public Archaeology Survey Team 2023). They include examples of a fluted point base, preforms, channel flakes, pièces esquillées, end scrapers, side scrapers, grinding stones, bifaces, utilized flakes, graters, and a 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 (Public Archaeology Survey Team 2023). Approximately 15,000 artifacts were collected in total.

The scarcity of identified Paleo-Indian sites suggests a low population density during this period. The small size of most Paleo-Indian sites, their likely inundation by rising sea levels, and the high degree of landscape disturbance over the past 10,000 years likely contribute to poor site visibility, although the presence of two deeply alluvially buried Paleo-Indian sites in Connecticut suggests that other sites may be located along stable rivers (Leslie et al. 2021).

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, the recovery of these projectile points has 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.

Another localized cultural tradition, the Gulf of Maine Archaic, which lasted from ca. 9,500 to 6,000 14C BP, is beginning to be recognized in Southern New England (Petersen and Putnam 1992). It is distinguished by its microlithic industry, which may be associated with the production of compound tools (Robinson and Peterson 1993). Assemblages from Maine (Petersen et al. 1986; Petersen 1991; Sanger et al. 1992), Massachusetts (Strauss 2017; Leslie et al. 2022), and Connecticut (Forrest 1999) reflect the selection of local, coarse-grained stones. Large choppers and hoe-like forms from southeastern Connecticut's Sandy Hill Site likely functioned as digging implements. Woodworking tools, including adzes, celts, and gull-channeled gouges recovered at the Brigham and Sharrow sites in Maine (Robinson and Petersen 1993:68) may have been used for dugout canoe manufacture. The deeply stratified Sandy Hill (Forrest 1999; Jones and Forrest 2003) and Sharrow sites (Petersen 1991), with their overlapping lenses of "black sand" floor deposits, suggest intensive site re-occupations according to an adaptation that relied, in part, on seasonally available wetland resources. Thus far, sites from this tradition have only been identified within coastal and near-coastal territories along the Gulf of Maine, in southeastern Connecticut, and in Massachusetts.

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

By the onset of the Middle Archaic Period modern deciduous forests had developed in the region (Davis 1969). Increased numbers and types of sites associated with this period are noted in Connecticut (McBride 1984). The most well-known Middle Archaic site in New England is the Neville Site in Manchester, New Hampshire studied by Dincauze (1976). Careful analysis of the Neville Site indicated that the Middle Archaic occupation dated from between 7,700 and 6,000 years ago. In fact, Dincauze obtained several radiocarbon dates from the Middle Archaic component of the Neville Site associated with the then-newly named Neville type projectile point, ranging from 7,740 \pm 280 and 7,015 \pm 160 B.P. (Dincauze 1976).

In addition to Neville points, Dincauze (1976) described two other projectile points styles that are attributed to the Middle Archaic Period: Stark and Merrimac projectile points. While no absolute dates

were recovered from deposits that yielded Stark points, the Merrimac type dated from 5,910±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).

The Narrow-Stemmed Tradition also marks one of the most prevalent manifestations of the archaeological record in southern New England, narrow-stemmed projectile points, often untyped, or typed as Lamoka, Wading River, or Squibnocket Stemmed forms. These are generally attributed to a form of projectile technology, but some (Boudreau 2008), have suggested that these tool forms might not be related to projectile technology, and may instead relate to graver or drill functions. Boudreau (2008) also drew important connections to the forms of these narrow-stemmed points with later Woodland era forms, such as Rossville points, which are nearly identical. Others (Lavin 2013; Zoto 2019) have similarly suggested a continuation of the Narrow-Stemmed Tradition into the Woodland era, with most of this evidence originating at coastal sites in southern New England. The vast majority of Narrow-Stemmed projectile points that are associated with cultural features suitable for radiocarbon dating, particularly Lamoka style projectile points, are associated with Late Archaic date ranges (Lavin 2013).

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 precontact periods. 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 Orient Fishtail projectile points (McBride 1984:119; Ritchie 1971).

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

Finally, while settlement patterns appeared to have changed, Terminal Archaic subsistence patterns were analogous to earlier patterns. The subsistence pattern was still 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. Archaeological investigations of Early Woodland sites in southern New England 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 indicate that Early Woodland Period settlement patterns were characterized by multiple re-use of the same sites on a seasonal basis by small co-residential groups.

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

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

The precontact period of Connecticut spans from ca. 13,000 to 350 B.P., and it is characterized by numerous changes in tool types, subsistence patterns, and land use strategies. Much of this era is characterized by local Native American groups who practiced a subsistence pattern based on a mixed economy of hunting and gathering 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 precontact period 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 that includes the proposed Project area, a variety of precontact site types may be expected, ranging from seasonal camps utilized by Paleo-Indian and Archaic populations to temporary and task-specific sites of the Woodland era.

CHAPTER IV

POST EUROPEAN CONTACT OVERVIEW

Introduction

The proposed Project will be located at 445 River Street in the Town of Windsor, which is located in Hartford County, Connecticut. This chapter provides an overview of Hartford County followed by a brief history of the Town of Windsor with a focus on the Project parcel. Most Connecticut towns, including Windsor, began as Native American settlements and later became English colonial villages. The Town of Windsor was founded in 1633 and was one of the three original English river towns (Van Dusen 1961). Windsor began as an agricultural settlement, became an important tobacco producing area through the nineteenth and twentieth centuries, and grew into a residential suburb in the twenty-first century. Although commercial and industrial development has varied, much of the town retains its rural character.

Hartford County

Hartford was one of the four original counties established in 1666 following the merger of Connecticut Colony and Hartford Colony (Van Dusen 1961). Located in central-northern Connecticut, Hartford Colony is bounded to the north by the State of Massachusetts, to the east by Tolland County, to the south by Windham, Middlesex, and New Haven Counties and to the west by New Haven and Litchfield Counties. Bisected by the Connecticut River, the county is also the location of the City of Hartford, the capital of Connecticut. Although Hartford has the highest population in the county (an estimated 126,443 as of 2020), Glastonbury has the largest land area (52.3 sq. mi.) (Connecticut 2021). Hartford County is in the lower central Connecticut River Valley and the land rises in the western portion of the county on a low mountain range known as the Metacomet Range (Bell 1985). The landscape varies from densely populated urban areas in most of the county to rich farmland regions in its northern bounds and includes a long stretch of the Connecticut River as well as other significant freshwater rivers. Important waterways associated with Hartford County include the Connecticut, Farmington, Hockanum, Podunk, and Scantic Rivers (Trumbull 1886). The county's three largest cities are Hartford, New Britain, and West Hartford while other important population centers are located at Bristol, Manchester, East Hartford, and Glastonbury (Connecticut 2021). The proposed project parcel is situated approximately 500 meters (1,640 feet) to the east of the Farmington River and approximately 3.5 kilometers (2.17 miles) to the west of the Connecticut River.

Woodland Period to Seventeenth Century

During the Woodland Period of northeastern North American history (ca., 3000 to 500 years ago) the Indigenous people who inhabited the Connecticut River Valley in central and northern Connecticut were part of the Eastern Algonkian civilization. It consisted of various groups, including the Podunk, Wangunk, Poquonock, and Suckiaug tribes. They spoke local variations of Southern New England Algonquian languages and resided in extended kinship groups on lands they maintained for a variety of horticultural and resource extraction purposes (Goddard 1978). Indigenous people in the region practiced subsistence activities including hunting, fowling, and fishing, along with the cultivation of various crops, the most important of which were maize, squash, and beans. They supplemented these foods seasonally by collecting shellfish, fruits, and plants during warmer periods, and gathering nuts, roots, and tubers during colder times (Lavin 2013). In addition, these communities came together in large groups to hunt deer in the fall and winter. Indigenous peoples lived with their immediate or extended families in large settlements often concentrated along rivers and/or wetlands. Some villages were fortified by wooden palisades. Their habitations, known as a *weetu* or *wigwam*, were generally constructed of a tree sapling

frame and covered in reed matting during warm months and tree bark throughout the winter. These varied in size from a small, individual dwelling to an expansive “long house” which could accommodate several families. Native communities commonly traded among both their immediate neighbors and often maintained long-distance networks as well (Lavin 2013). At the time of the arrival of Europeans some of the prominent Native nations in the region, from the present-day Massachusetts-Connecticut border to present day Hartford included the Agawam, Poquonock, Tunxis, Podunk, and Suckiaug people (DeForest 1852; Lavin 2013). The Native people who resided at present-day East Windsor in the years prior to the arrival of the Europeans were known as the Poquonock.

Seventeenth Century Through Eighteenth Century

As Native communities maintained oral tradition rather than a written record, most surviving information of the Indigenous people of present-day Hartford County was recorded by European observers (Lavin 2013). The earliest Europeans known to have sailed to Long Island Sound and up the Connecticut River were the Dutch in 1614 under Captain Adrian Block. Block created a figurative map that depicted the Connecticut River, which he named the *Versche Rivier* (Fresh River). They sailed as far north as the site of present-day East Windsor and the “Enfield Falls” where they traded with the Indigenous people there (DeForest 1852; Stiles 1891). The Dutch learned the significance of *wampum*, polished tubular shell beads created from the white *whelk* shell and the purple *quahog* shell, which they exchanged for furs from Native peoples from the interior (Hauptman & Wherry 2009; McBride 2013). The Dutch developed trade relationships with Native communities in valley including the Wangunk, Podunk, and Poquonock. By the 1620’s the Dutch and Pequot of present-day southeastern Connecticut traded wampum and furs for European goods. In 1624 the Dutch established New Netherland Colony centered around Manhattan (Jacobs 2009). The Pequot extended their dominance over the Connecticut shoreline, eastern Long Island, and the lower Connecticut River Valley bringing Native communities there into a tributary relationship under their leadership, including the Poquonock (Hauptman & Wherry 2009; McBride 2013). In 1633, the Pequot allowed the Dutch to build a trading post, the *Huys de Hoop*, at present-day Hartford to dominate the flow of wampum and fur.

To break from the Pequot, several Connecticut River sachems invited the English to settle near them. The Dutch opposed this but were unable to remove them. Windsor was founded in 1633 followed by Wethersfield (1634), Hartford (1635) and Saybrook Colony (1635) at the mouth of the river (Trumbull 1886; Barry 1985). More Europeans in the region meant exposure to diseases indigenous people had not encountered before and therefore had no natural immunity to which devastated Native communities. In 1633, there were reports of a “plague” that had wiped out 90 percent of the Podunk community in present-day Windsor. Tensions between Native and European groups resulted in the death of several English traders which were blamed on the Pequot. As a result, English forces from Massachusetts Bay destroyed Pequot villages on the Pequot (Thames) River which began the Pequot War. The Pequot laid siege to Saybrook Fort during the winter of 1636-1637 and attacked Wethersfield in April 1637. Connecticut Colony declared war on the Pequot, joined by Connecticut River Native allies, including the Poquonock and the Mohegan under the Sachem Uncas (Oberg 2006). In May of 1637 English allied forces destroyed the fortified Pequot village at Mistick and in July they pursued refugees west where they defeated the Pequot in present-day Fairfield and soon after the war ended (Stiles 1891; Cave 1996). Pequot territory was considered conquered land claimed by Connecticut Colony and 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).

The General Assembly began issuing land distributions by 1640 and Windsor received a large grant that became the northeastern bounds of town in an area known as Pine Meadow. By 1656, the “Old County Road” was laid out from Pine Meadow north along the river valley to Northampton, Massachusetts (Stiles 1891). In 1662, Governor John Winthrop, Jr., obtained a royal charter from King Charles II to legitimize the existence of Connecticut Colony in the English Empire. Windsor developed as an agricultural town with strong maritime ties due to the Connecticut River. The original bounds of the Town of Windsor included the present towns of Windsor Locks, East Windsor, South Windsor, and Ellington (Stiles 1891; Barry 1985). Early settlers in the Connecticut River Valley were primarily farmers who raised various types of grain as well as tobacco. During the eighteenth century, some farmers turned to grazing and raised livestock. Other forms of industry also appeared as gristmills, sawmills, and fulling mills became common (Van Dusen 1961). Due to its river location, Windsor served as an important port from which merchants shipped various products, including timber, bricks, livestock, and tobacco. Ships transported these items south to the West Indies and, once there, picked up sugar, salt, British-made textiles, and ceramics, among other things, importing them back to the colonies. Another significant industry fueled by the Connecticut River was shipbuilding, which took place in what are now South Windsor and East Windsor. Shipbuilding was also common on the Farmington River in northern Windsor (Stiles 1891).

Throughout the eighteenth century, Windsor’s population steadily increased and the town became an important agricultural hub that produced a variety of food stores. Residents were primarily farmers who grew crops such as corn, rye, oats, and barley while others turned to raising livestock including cattle, sheep, and pigs. Although parts of Windsor excelled in tobacco production, the northeastern section of town, which would later become Windsor Locks, did not. Windsor farmers sold their products to nearby cities, supplied maritime provisions, and found markets in the southern colonies and Caribbean (Stiles 1891). Slavery existed in Windsor since the seventeenth century and by the eighteenth century it was primarily practiced by wealthy families, merchants, and ministers but there is little evidence that slavery existed in present-day Windsor Locks. By the time of the first census in Connecticut in 1756, the population of Windsor had reached 4,220 residents (Connecticut 2023a). The population fell dramatically after 1768 due to the separation of East Windsor, which at the time encompassed all of Windsor’s territory on the eastern side of the Connecticut River, including modern-day South Windsor and Ellington. The 1774 Connecticut colonial census recorded a “White” population of 2,082, a “Negro” population of 37, and six “Indians” in Windsor (Hoadly 1887).

During the American Revolution (1775-1783), the state of Connecticut played an important role in the process of recruiting soldiers, supplying food stores, and providing a variety of military goods for the war effort. Throughout the war, Connecticut was a leader in sourcing provisions for American forces, due to a rationing system set up by individual towns, including in Windsor (Van Dusen 1961). Following the war, the State passed a gradual manumission law in 1784, but slavery was not fully abolished until 1848 (Normen 2013). On January 9, 1788, Connecticut ratified the U.S. Constitution to become the fifth state (Van Dusen 1961). As post-war development in industry and transportation continued, it was in the late 1790s and early 1800s that steam powered ships began to replace sail power along the Connecticut River. John Fitch, a Windsor native, is credited with designing an experimental steam powered ship in 1788 (Griswold 2012). Steam power and canals would grow in popularity and usefulness in the upcoming years. By 1790, Windsor’s population had risen slightly to 2,714 residents (Connecticut 2023a; Table 1).

Nineteenth Century Through Twenty-First Century

At the start of the nineteenth century, Windsor was still a small agricultural town, but by the 1830s it had developed some manufacturing facilities and experienced further advancements in transportation. At that time Windsor had four paper mills and several factories that produced Kentucky jean cloth, cotton batting, wire, and satin. The town also had a canal that extended north to Enfield. Operated by the Connecticut River Company, the canal opened in 1829 and allowed passengers to travel by steamboat between Hartford and Springfield, which was a popular mode of travel until it was superseded by the railroad (Stiles 1891). Throughout the nineteenth century, the local population fluctuated mainly due to the formation of new towns from Windsor's territory. In 1830, Windsor had 3,220 residents, but following the separation of the Town of Bloomfield in 1835, the population fell to 2,283 by 1840 (Connecticut 2022b; Table 1).

By 1844, the Hartford & Springfield Railroad had built tracks through Windsor. Since the rail line linked with the Hartford & New Haven line in Hartford, Windsor had a reliable connection to the state's rail system thereafter. Windsor was not a heavily industrialized town but in 1853 the Sequasson Woolen Company was incorporated, which successfully ran a steam powered textile operation for many decades (Stiles 1891). In 1854 the Pine Meadow section of Windsor separated to become the Town of Windsor Locks although the 1860 census counted their residents jointly with Windsor, enumerating 3,865 residents in town (Connecticut 2022b; Table 1). During the Civil War (1861-1865) the Town of Windsor contributed 187 recruits to the Union Army and lost 17 men during the conflict and another 24 were wounded (Hines 2002). Following the war, the town continued to develop as an important agricultural and industrial hub, home to several paper mills as well as a significant tobacco producer. The 1870 census provided separate counts and noted the population of Windsor Locks as 2,154 residents and Windsor as 2,783 (Connecticut 2022b; Table 1). The Connecticut Western Railroad opened in 1871 and it connected Hartford with New York State along a northerly route that extended through Windsor. The railroads, however, did little to encourage the development of large-scale industry in the town (Turner and Jacobus 1989). As of 1890, the principal industry in Windsor was still agriculture (Connecticut 1890). At the end of the century, the number of residents in Windsor had risen to 2,954 (Connecticut 2023b).

As of the early twentieth century, Windsor's population was still under 5,000 residents and its main industries were general manufacturing and agriculture (Connecticut 2022c; Table 1). One of Windsor's most important agricultural crops at that time was tobacco. In 1896, a method was developed for growing "shade tobacco," which consisted of building light cloth tents on poles over the plants, enabling the tobacco leaves to take on a more pleasant color (McDonald 1936). The town of Windsor was at the forefront of this development, cultivating the first shade-grown tobacco in 1900. Although the Connecticut Tobacco Experiment Station had been established in the Poquonock district of Windsor 10 years earlier, a second "Tobacco Experiment Station" was established in 1921. The work of these initially private operations "made Windsor the center of the industry, with more acres under cultivation than any other town in the valley" (Cunningham 1995). While in 1907 only 70 acres throughout New England were planted under shade, by 1919 there were 3,900 acres planted in Connecticut alone. At that time the Connecticut crop was valued at \$4,830,000. Between 1923 and 1936, the tobacco crop comprised over 33 percent of the total value of Connecticut agricultural products (McDonald 1936). By mid-century, Connecticut had experienced growth reflecting the postwar adoption of the automobile and the subsequent suburban residential development trend, as well as the construction of highways, including Interstate 91 completed in Windsor in 1956. Because of this suburbanization trend, as of 1960, Windsor's population had risen to 19,467 residents (Connecticut 2022c; Table 1). At this time, Windsor's manufacturing sector had expanded and included the production of bricks, iron castings, machine tools, and atomic energy (Connecticut 1960). While tobacco production had begun to decline, by 1990 the value

of the town’s annual crop was worth more than it was in 1950 due to the dramatic increase of the market price of tobacco (Cunningham 1995).

At the beginning of the twenty-first century, Windsor’s population continued to increase and reached 29,044 residents in 2010 (Connecticut 2023d). At that time, the largest employment sector in town was insurance, followed by transportation and warehousing, as is evidenced by two of the major employers in town, The Hartford and Amazon (AdvanceCT and CTData Collaborative 2021). Tobacco production was still a notable part of the economy. Other principal industries were power generation, aerospace, medical technology, adhesives, and automotive parts (Connecticut 2021). Despite these diverse manufacturing ventures and the ongoing presence of farming, the town of Windsor retains a suburban residential character.

Table 1: Population of Windsor, Connecticut, Hartford County 1890-2020 (Connecticut 2022b-d; AdvanceCT and CTData Collaborative 2021a)

Town	1890	1900	1910	1920	1930	1940	1950
Town of Windsor, Hartford County, Connecticut	2,954	3,614	4,178	5,620	8,290	10,068	11,833
	1960	1970	1980	1990	2000	2010	2020
	19,467	22,504	25,204	27,817	28,237	29,044	29,492

History of the Project Area

During the nineteenth century, the project parcel was located in what were rural, agricultural lands. Woodford’s 1855 Hartford County map shows the proposed Project area is in the northeastern portion of Windsor near the border with the Town of Windsor Locks. The 1855 map of the region reveals that there was little development in the immediate vicinity of the project parcel with the two closest structures located around 300 meters (984 feet) south of the project area owned by a “Esther Owen” and another by an “O. J. Phelps” on north side of River Street. Significant development is evident to the west of the project area and the Farmington River along Pequonnock Avenue (Figure 3; 1855 map). According to the subsequent 1869 Baker Hartford County map, little had changed to the project parcel and the general vicinity. The area east of the Farmington River and around River Road appears largely undeveloped. There are two dwelling houses south of the project area remained owned by “Owen” and “O. J. Phelps” while the project area appears undeveloped and likely under agricultural cultivation (Figure 4; 1869 map).

Photographs taken in 1934 during the Fairchild Aerial Surveys indicates that the proposed project parcel was under active agricultural cultivation, likely growing tobacco as evident by at least two long structures toward the south of the property that are likely tobacco barns. The surrounding landscape appears to be evenly divided between forested land and cleared agricultural fields with tobacco barns visible (Figure 5; 1934 Aerial). An aerial image taken in 1970 by the Natural Resources Conservation Service indicates that few changes occurred on the landscape since 1934, with the project area being under agricultural cultivation with several tobacco barns visible. The surrounding landscape also appears to be a mixture of extensive tobacco fields interspersed with forested land (Figure 6 and 7; 1951 and 1970 Aerials). In contrast, the environment around the project area changed substantially according to a 1990 aerial image. A new road with intermittent suburban residential housing was constructed directly west of the project area with the new road named River Road while the old road route became known as Old River Street. The section of the road to the south of the project parcel underwent significant residential development as well. The project parcel itself remained under agricultural cultivation and lands further east remain a mixture of forested land and tobacco fields (Figure 8; 1990 Aerial). In the

early twenty first century the landscape remained the same as indicated by a 2019 dated aerial image by Connecticut Environmental Conditions. The western and southern bounds of the project area along River Road remain heavily developed with residential housing. The project parcel remained under agricultural cultivation as did large tracts of land to the east mixed with some forested land (Figure 9; 2019 Aerial). In 2023, those agricultural and wooded properties abutting the project parcel to the northwest were developed into a large Amazon Fulfillment Center while the project parcel remained cleared and under agricultural cultivation (Hartford Courant 2023).

Conclusions

The documentary review indicates that the Project parcel has been consistently used as agricultural fields. Thus, there is the possibility of encountering remains of post European Contact era outbuildings, stonewalls, or other evidence of farming. However, archaeological deposits associated with these uses would not necessarily be considered culturally significant.

CHAPTER V

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archaeological research completed within the vicinity of the project parcel in Windsor, Connecticut and it provides the comparative data necessary for assessing the results of the current Phase IB cultural resources reconnaissance survey. It also ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the Facility 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 9 and 10). The discussions presented below are based on information currently on file at the CT-SHPO in Hartford, Connecticut. In addition, the electronic site files maintained by Heritage were examined during 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 Connecticut State Historic Preservation Office, as well as the electronic site files maintained by Heritage resulted in the identification of 20 previously recorded archaeological sites within 1.6 km (1 mi) of the project area (Table 2 and Figure 10). A total of 17 sites are in located Windsor and three are situated in Windsor Locks. Only two of the 20 sites, the Atkinson Site (164-79) and the Hayden Station Road Site (164-a), have been determined to be potentially eligible for listing to the NRHP. In addition, two Connecticut State Register of Historic Places properties (Phineas Griswold House and a c. 1860 Italianate residence) and one National Register of Historic places property also (Eli Phelps House) are located within 1.6 km (1 mi) of the project area (Figure 11).

Table 2. Previously Identified Archaeological Sites within 1.6 km (1 mi) of the project area.

Town	Site Number	Recorder	Date Recorded	Cultural Affiliation	Site Name
Windsor	164-a	E. Correia (Heritage Consultants, LLC)	6/30/2021	Precontact	Hayden Station Road Site
Windsor	164-4	Warner (CAS)	3/1979	Precontact	Schwartz
Windsor	164-6	Unknown	-	Precontact	Phelps
Windsor	164-11	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Oxbow (Mother's Meadow)
Windsor	164-13	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Office Site
Windsor	164-14	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Barn #10
Windsor	164-15	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Barn #27
Windsor	164-16	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Barn #33
Windsor	164-17	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Barn #36
Windsor	164-18	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Shed #50
Windsor	164-19	J. Lizee (PAST, Inc)	1/30/1992	Precontact	Area 1

Table 2. Previously Identified Archaeological Sites within 1.6 km (1 mi) of the project area, cont.

Town	Site Number	Recorder	Date Recorded	Cultural Affiliation	Site Name
Windsor	164-40.1	D. George (Heritage Consultants, LLC)	02/2007	Post European Contact	Settler Circle Historic Site (W1-5)
Windsor	164-40.2	D. George (Heritage Consultants, LLC)	02/2007	Precontact	Settler Circle Prehistoric Site (W1-5)
Windsor	164-42	D. George (Heritage Consultants, LLC)	02/2007	Precontact	Sawka Drive Prehistoric Site (W1-11)
Windsor	164-48	D. George (Heritage Consultants, LLC)	02/2007	Precontact	Route 20 Prehistoric Site (W1-34)
Windsor	164-52	D. George (Heritage Consultants, LLC)	02/2007	Precontact	Thrall #2 Prehistoric Site (W1-46)
Windsor	164-61	D. George (Heritage Consultants, LLC)	02/2007	Precontact	River Farms Prehistoric Site (W2-21)
Windsor	164-79	C. Atkinson (Heritage Consultants, LLC)	02/07/2020	Precontact	The Atkinson Site (Locus 1)
Windsor Locks	165-2	B. Calogero (PAST, Inc)	12/21/1991	Precontact	OT3
Windsor Locks	165-4	B. Calogero (PAST, Inc)	12/21/1991	Precontact	Honda
Windsor Locks	165-6	D. George (Heritage Consultants, LLC)	09/01/2005	Precontact	Site 165-6

Site 164-a

Site 164-a is also known as the Hayden Station Road Site. It is located on private land within a tobacco field at 1190 Kennedy Road in Windsor, Connecticut (Figure 10). It was recorded in June of 2021 by Elizabeth Correia of Heritage Consultants, LLC. The Hayden Station Road Site represents a precontact era camp site occupied during the Late Archaic Period. Despite disturbance in the plowzone from previous tobacco cultivation, underlying stratigraphy remained intact. The site was determined to be potentially eligible for listing on the National Register of Historic Places under Criteria A and D. The post European contact component was not considered significant. The site was also subjected to mechanical stripping and hand excavation of all cultural features prior to development of the project parcel. The site has been destroyed.

Site 164-4

Site 164-4, also known as the Schwartz Site, is located in an agricultural field at the intersection of Hayden Station Road and Kennedy Road in Windsor, Connecticut (Figure 10). The site was recorded by a member of the Archaeological Society of Connecticut in 1975 and examined by Dr. Douglas Jordan and Central Connecticut State University in 1976. It was determined that Site 164-4 contained 18 human cremation burials. Associated artifacts included quartz debitage, a small grooved axe, Mansion Inn blades, flint debitage, and fire cracked rock with charcoal. These finds indicated an occupation dating from the Late/Terminal Archaic Period. Altogether, Site 164-4 is approximately the acres in size and had fair integrity in 1979 when it was reported. However, it has been destroyed since then and was not assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Site 164-6

Site 164-6 is located on two small knolls to the south of Marshall Phelps Road and west of Phelps Brook in Windsor Locks, Connecticut (Figure 10). It was recorded in 1975 as the Phelps Site. Precontact era artifacts collected from the site area are of an unknown material/type; they were collected by a local artifact collector, though not enough information was documented to determine the use or age of the Phelps Site.

Site 164-6 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-11

Site 164-11, which is also known as the Oxbow (Mother's Meadow) Site, is located on a floodplain and knoll to the north of the Farmington River and to the west of Interstate I-91 (Figure 10). The site was recorded after it had been surface collected by Walter Rapp, LaRose, Kowalski, and Cook. Artifacts collected from the site included a "Neville projectile point, Brewerton-eared point, quartz narrow stemmed points, fish tailed points, small triangular point, a symmetric pentangle, and steatite bowl fragments." The Oxbow (Mother's Meadow) Site has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-13

Site 164-13, which is also known as the Office Site, was recorded in 1991 by Barbara Calogero of the Public Archaeology Survey Team (PAST) (Figure 10). Lithic artifacts collected from the site area included a broad blade, projectile points of the Susquehanna Tradition, and steatite bowl fragments collected from the surface by Richard LaRoge in the 1980s. The recorded artifacts suggest a Terminal Archaic Period occupation; however, very little information was recorded on the site form. The boundaries of Site 164-13 are unknown, and it is located on privately owned industrial property located at the corner of River Street and Kennedy Road in Windsor, Connecticut. The Office Site was recorded as "destroyed" in 1991. Site 164-13 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-14

Site 164-14, which is also known as the Barn #10 Site, was recorded in 1991 by Barbara Calogero of the Public Archaeology Survey Team (PAST) (Figure 10). The single artifact recovered from the site area was described as a Brewerton eared-notched projectile point, which was collected from the surface by Walter Rapp in 1990. The projectile point indicates the Late Archaic Period occupation of the area; however, very little other information was recorded on the site form. The boundaries of Site 164-14 are unknown other than it was located in a cleared agricultural field on the west side of Kennedy Road Windsor, Connecticut. The site was recorded as "destroyed" in 1991. Site 164-14 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-15

Site 164-15 was recorded in 1991 as the Barn #27 Site by Barbara Calogero of the Public Archaeology Survey Team (PAST) (Figure 10). Lithic artifacts recovered from this site included a Brewerton side-notched projectile point and a Neville projectile point, both of which were collected from the surface by Walter Rapp in 1990. The recovered projectile points indicate Middle and Late Archaic Period occupations. The boundaries of Site 164-15 are unknown and it is located in a cleared agricultural field on the west side of Kennedy Road Windsor, Connecticut. This site was also recorded as "destroyed" in 1991. Site 164-15 has not been assessed applying the qualities of significance as defined by the National Register of Historic

Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-16

Site 164-16, which is also known as the Barn #33 Site, was recorded in December of 1991 by Barbara Calogero of the Public Archaeology Survey Team (PAST) (Figure 10). The site was recorded after Walter Rapp collected a broad blade point from the surface of the site in 1990. Rapp was a worker for the Thrall tobacco farmers and the blade was within one of their fields off Kennedy Road. No other information related to the precontact period use of the Site 164-16 area is recorded on the site form. It has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-17

Site 164-17 was recorded as Barn #36 Site by Barbara Calogero of the Public Archaeology Survey Team (PAST) in 1991 (Figure 10). This occupation produced narrow stemmed projectile points as well as projectile points of the Susquehanna Tradition, all of which were collected from the surface by Walter Rapp in 1990. The recorded artifacts date to the Late Archaic Period. The boundaries and integrity of Site 164-17 are unknown; however, the site is in a cleared agricultural field on the west side of Kennedy Road Windsor, Connecticut. Site 164-17 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-18

Site 164-18 was recorded as the Shed #50 Site by Barbara Calogero of the Public Archaeology Survey Team (PAST) in 1991 (Figure 10). Lithic artifacts recovered from the site area included Levanna projectile points that were collected from the surface by Walter Rapp in the 1990. The recorded artifacts suggest a Late Woodland Period occupation for this site. The boundaries and integrity of Site 164-18 are unknown and it is located in a forested area on the west side of Kennedy Road Windsor, Connecticut. Site 164-18 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 164-19

Site 164-19, also known as the Area I Site, is a precontact era encampment situated at the location of the Exit 39 entrance ramp (southbound) on Interstate-91 in Windsor, Connecticut (Figure 10). Site 164-19 was recorded by Jonathan Lizee of the Public Archaeology Survey Team (Past) in March of 1994. PAST determined that Area I dated from the Terminal Archaic Period based on the recovery Orient projectile points, pottery sherds, and steatite fragments collected during excavation. Additional cultural material recovered from Area I included lithic debitage, faunal remains, and groundstone tools. Further, several post molds were also identified. At the time of excavation, the site measured approximately 2,000 square meters (6,562 square feet) in size. Site 164-19 is now partially destroyed by completed improvements to the Exit 39 entrance ramp (southbound) on Interstate-91. It was assessed as eligible for inclusion when applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). The site is located approximately 1.6 km (1 m) to the southeast of the project parcel and will not be impacted by the proposed construction.

Site 164-40.1

Site 164-40.1 is also known as the Settler Circle Historic Site (W1-5). The nineteenth to twentieth century site is located on private land at 30 Settler Circle in Windsor, Connecticut (Figure 10). It was recorded in February of 2007 by Heritage Consultants, LLC in Newington, Connecticut. This site was identified during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-40.1 included glass, nails, porcelain, and whiteware sherds. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-40.2

Site 164-40.2 is also known as the Settler Circle Prehistoric Site (W1-5). The precontact era camp site is located on private land at 30 Settler Circle in Windsor, Connecticut (Figure 10). It was recorded in February of 2007 by Heritage Consultants, LLC in Newington, Connecticut. This site was identified during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-40.2 included a single slate flake and numerous flint flakes. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-42

Site 164-42, which is also known as the Sawka Drive Prehistoric Site (W1-11), is located on Sawka Drive in Windsor, Connecticut (Figure 10). This site was identified and recorded by Heritage Consultants, LLC during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-42 included flint and quartz flakes. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-48

Site 164-48, which is also known as the Route 20 Prehistoric Site (W1-34), is located along Route 20 in Windsor, Connecticut (Figure 10). This site was identified and recorded by Heritage Consultants, LLC during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-48 included felsite, flint, and quartzite flakes. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-52

Site 164-52, which is also known as the Thrall #2 Prehistoric Site (W1-46), is located within a tobacco field (Thrall #2) in Windsor, Connecticut (Figure 10). This site was identified and recorded by Heritage Consultants, LLC during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-52 included flint and quartz flakes. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-61

Site 164-61, which is also known as the River Farms Prehistoric Site (W2-21), is located on private land at the River Farms in Windsor, Connecticut (Figure 10). This precontact era camp site was identified and recorded by Heritage Consultants, LLC during testing of a town-wide GIS predictive model of archaeologically sensitive areas. Each test area was examined through the excavation of six shovel tests in an effort to identify unknown archaeological sites. Recovered cultural material from Site 164-61 included numerous flint flakes. This area was designated as a high probability area in the GIS predictive model. Heritage recommended that additional testing of this area be completed to determine whether or not this site is significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Site 164-79

Site 164-79, which is also known as the Atkinson Site (Locus 1), is located on private land owned by O. J. Thrall and west of Kennedy Road in Windsor, Connecticut (Figure 10). This precontact era camp site was identified and recorded in February of 2020 by Heritage Consultants, LLC during Phase IB Cultural Resources Reconnaissance Survey of a proposed Distribution Facility along Kennedy Road in Windsor, Connecticut and Phase II National Register Testing and Evaluation of Loci 1 and 2 associated with the Distribution Facility. Phase IB cultural resources survey resulted in the collection of 43 prehistoric artifacts, including 1 chert Atlantic projectile point, 1 rhyolite secondary flake, 1 basalt secondary flake, 3 chert secondary flakes, 1 quartz primary reduction flake, and 4 quartz secondary flakes from the Ap; and 12 chert secondary flakes, 1 piece of fire-cracked rock (FCR), 1 chert retouched flake, 8 quartz secondary flakes, 4 pieces of quartz shatter, and 1 chert Wayland projectile point from the subsoil. Phase II National Register testing and evaluation produced 265 precontact era artifacts: 1 basalt secondary flake, 22 chert secondary flakes, 1 chert projectile point tip, 10 quartz secondary flakes, 1 quartz primary flake, 11 FCR from the plow zone; and 3 calcined bone fragments, 21 chert secondary flakes, 25 quartz secondary flakes, 9 pieces of quartz shatter, 1 untyped quartz narrow stemmed projectile point, 1- FCR from the subsoil. Unit excavations produced 22 chert secondary flakes, 1 calcined bone fragment, 10 FCR from the plow zone; and 1 ground stone hoe, 16 chert secondary flakes, 1 burned secondary chert flake, 3 rhyolite secondary flakes, 1 quartz secondary flake, 1 utilized quartz flake, 64 FCR, and 2 calcined bone fragments from the subsoil. The recovered lithic assemblage consisted of a wide variety of material types, although the dominant lithic varieties are of quartz and chert. Given the wide variety of materials and artifacts, as well as the overall integrity of the site, Locus 1 possesses research potential and is eligible for listing to the National Register of Historic Places under Criterion D of the criteria for evaluation (36 CFR 60.4 [a-d]). Site 164-79 is located approximately 75 meters (246 feet) to the east of the project area. While it has been recorded outside of the project area, it is possible that the site boundary could extend into the project parcel.

Site 165-2

Site 165-2, which is also known as the OT 3 Site, is a precontact era site located at the junction of Connecticut Route 20 and Old County Road in Windsor Locks, Connecticut (Figure 10). It is situated on nearly level ground in an agricultural field. Cultural material recovered from the OT 3 Site suggested a Middle to Late Archaic Period occupation. Site 165-2 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 165-4

Site 165-4, also known as the Honda Site, is a precontact site located just north of the junction of Connecticut Route 20 and Old County Road in Windsor Locks, Connecticut (Figure 10). It is situated on nearly level ground in forested area. Cultural material recovered from the Honda Site suggested a Late Archaic Period occupation. Site 165-4 has not been assessed applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away from the project parcel and will not be impacted by the proposed construction.

Site 165-6

Site 165-6 is a precontact era site located on the eastern side of Old County Road in Windsor Locks, Connecticut just north of Connecticut Route 20 (Figure 10). Site 165-6 measures approximately 130 x 200 m (426 x 656 ft) in size. It was recorded in May of 2005 by David George of Heritage Consultants, LLC. During Phase I and Phase II excavation, Heritage Consultants, LLC recovered 278 artifacts including chert quartz and argillite flakes as well as broken projectile points. Recovered broad blade projectile points indicate a Late Archaic to Terminal Archaic Period occupation. Given the low density of artifacts and lack of soil integrity, Heritage assessed Site 156-6 as not eligible for inclusion when applying the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). It is located well enough away that the site will not be impacted by the proposed construction.

Eli Phelps House

The Eli Phelps House is located in a residential area at 18 Marshall Phelps Road in Windsor, Connecticut (Figure 11). It is situated approximately 1.6 km (1 mi) to the southwest of the proposed project parcel. The Italianate style structure, which was constructed in ca., 1860 was listed on the National Register of Historic Places on September 15, 1988. The Eli Phelps House is the largest and most elaborate Italianate style structure remaining in town. It is a two-story masonry structure with a flat roof that has deep eaves supported by paired Italianate brackets. The roof supports a square cupola, also with a deep bracketed roof, with groups of round-arch windows on each side. The northern and southern sides of the building each have a projecting polygonal window base that measure two stories in height. The Eli Phelps House is situated well enough away from the project area that it will not be impacted by the proposed construction.

Phineas Griswold House

The Phineas Griswold House is located at 1319 Poquonock Avenue in Windsor, Connecticut (Figure 11). It is situated approximately 1.6 km (1 mi) to the southwest of the proposed project parcel. This Colonial style structure was constructed in ca., 1789 and listed on the State Register of Historic Places on August 5, 1966. At the time of its listing, the house was described as appearing “relatively plain (sic) but has recently been restored in good taste.” It is a large house with a central chimney with nine front windows. The Phineas Griswold House is well enough away from the project area that it will not be impacted by the proposed construction.

ca., 1860 Italianate Residence

The ca., 1860 Italianate Residence is located on the northern side of Marshall Phelps Road and 100 yards to the west of Pequannock Avenue in Windsor, Connecticut (Figure 11). It is situated approximately 1.6 km (1 m) to the southwest of the proposed project parcel. The residence was listed on the State Register of Historic Places on August 5, 1966. At the time of its listing, the house was described as a two-story brick structure with a strong Italian Vill influence with a deep cornice supported by wooden brackets. The hipped roof has a cupola on it. The ca., 1860 Italianate Residence is well enough away from the project area that it will not be directly impacted by the proposed construction.

Summary and Interpretations

The review of previously completed research in the vicinity of the project area and the analysis of cultural resources recorded nearby, indicates that the larger project region contains precontact Native American deposits. Archaeological sites occupied within the study region date from as early as the Late Archaic Period (ca., 4,500 years ago), suggesting that additional archaeological sites may be situated within the project parcel. In addition, residences from the Colonial Period and later also exist in the project region. Therefore, additional post-European Contact period cultural resources may be located in the project parcel.

CHAPTER VI

METHODS

Introduction

This chapter describes the research design and field methods used to complete the Phase IB cultural survey of the development area associated with the proposed Project at 445 River Street in Windsor, Connecticut. In addition, the location and point-of-contact for the facility at which all cultural material, drawings, maps, photographs, and field notes generated during survey will be curated is provided below.

Research Design

The current Phase IB cultural resources reconnaissance survey was designed to identify all precontact and post-European Contact period cultural resources located within the proposed development area in Windsor, Connecticut. Fieldwork for the survey was comprehensive in nature and project planning considered the distribution of previously recorded archaeological sites located near the Project area, as well as an assessment of the natural qualities of the Project parcel. The methods used to complete this investigation were designed to provide complete and thorough coverage of all portions of the development area. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation.

Field Methods

Following the completion of all background research, the development area was subjected to a Phase IB cultural resources reconnaissance survey utilizing pedestrian survey, photo-documentation, GPS recordation, and systematic shovel testing. The field strategy was designed such that the entirety of the sensitivity area was examined visually and photographed. The pedestrian survey portion of this investigation included visual reconnaissance of all of the development area. The subsurface examination was completed through the excavation of shovel tests at 30 meter (98 foot) intervals along survey transects positioned 30 meters (98 feet) apart. In the instance that precontact era cultural material was recovered, the find spot was delineated at 7.5 and 15 meters (24.6 and 49.2 feet) in each cardinal direction to ensure thorough investigation of the area. Each shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size, and each was excavated until glacially derived C-Horizon or immovable object (e.g., boulders, large tree roots) were encountered. Each shovel test was excavated in 10 cm (3.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635-centimeter (0.25 in) hardware cloth. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled after it was fully documented.

Curation

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

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

CHAPTER VII

RESULTS OF THE INVESTIGATION & MANAGEMENT RECOMMENDATIONS

Introduction

This chapter presents the results of the Phase IB cultural resources reconnaissance survey of the Project area associated located at 445 River Street in Windsor, Connecticut (Figure 12 and Photos 1 through 16). As discussed in Chapters I and IV, Phase IB survey included pedestrian survey, augmented by systematic shovel testing and photo-documentation throughout the limits of the development area (Figure 12). The results of the Phase IB survey effort are presented below.

Results of Phase IB Cultural Resources Reconnaissance Survey

As stated earlier, the proposed Project area encompasses 18.2 acres of land bounded by small strips of vegetated and wooded areas to the east, north, and south, heavy residential development to the west and south, and commercial development to the northeast. It is situated at elevations ranging from approximately 22 to 26 m (72.2 to 85 ft) NGVD. During a previously completed Phase IA survey, it was determined that all 18.2 acres of the Project area possessed a moderate/high archaeological sensitivity. In addition, the previous Phase IA cultural assessment survey resulted in the identification of a previously identified precontact era archaeological site (Site 164-79) 75 meters (250 feet) to the east of the Project area. The results of the Phase IB survey are discussed below.

At the time of survey, the development area was characterized by gently sloping topography that consists of fallow agricultural fields and hardwood/deciduous trees along the northern and eastern edges (Table 1 and Photos 1 through 3). A total of 81 of 81 (100 percent) planned shovel tests, as well as 28 radial shovel tests were excavated throughout the development area during the Phase IB survey (Table 3). The planned test pits were positioned at 30 meter (98 foot) intervals along 13 parallel transects spaced 30 meters (98 feet) apart (Figure 12).

Table 3. Overview of Phase IB SA-1 Shovel testing results.

Transect	Planned	Excavated	Not Excavated	Negative	Positive	STPS Yielding Precontact Era Cultural Material	Post-European Contact Cultural Material
1	4	4	-	3	1	1	-
2	4	4	-	4	-	-	-
3	4	4	-	3	1	-	1
4	4	4	-	3	1	-	1
5	4	4	-	3	1	1	-
6	5	5	-	4	1	-	1
7	6	6	-	6	-	-	-
8	9	9	-	9	-	-	-
9	10	10	-	9	1	-	1
10	11	11	-	11	-	-	-
11	8	8	-	7	1	-	1
12	8	8	-	7	1	-	1
13	4	4	-	3	1	1	-
Radials	-	28	-	24	4	3	1
Total	81	109	-	96	13	6	7

Due to the presence of some disturbance within the Project area, there were three typical soil profiles identified: those capped by plowed soils with intact B-Horizons, those containing a buried A-Horizon, and those containing fill soils. A typical test pit containing plowed soils with intact subsoil horizons exhibited at most four horizons that reached an average depth of 106 centimeters below surface (cmbs) (41.7 inches below surface [inbs]). The uppermost layer of shovel tests in plowed soils with intact B-Horizons consisted of an Ap-Horizon (plowzone) that was described as a deposit of dark brown (10YR 3/3) fine sandy loam. It extended from 0 to 30 cmbs (0 to 11.8 inbs). The underlying B1-Horizon was described as a layer of dark yellowish brown (10YR 4/6) fine sandy loam that reached from 30 to 55 cmbs (11.8 to 21.7 inbs). The B2-Horizon consisted of a deposit of yellowish brown (10YR 5/4) fine sandy loam and extended from 55 to 86 cmbs (21.7 to 33.9 inbs). In cases where the fourth soil deposit was encountered, it was described as a glacially-derived C-Horizon that consisted of light olive brown (2.5Y 5/4) medium-to-coarse sand. This deposit was generally encountered at 86 cmbs (33.9 inbs) and continued to the base of the shovel tests at a depth of approximately 106 cmbs (41.7 inbs) (Figure 13). This was the most common shovel test pit profile encountered throughout the development area.

A typical test pit containing a Buried A-Horizon exhibited at most five horizons that reached an average depth of 100 cmbs (39.4 inbs). The uppermost layer of shovel tests in soils containing a Buried A-Horizon consisted of a plowzone that was described as a deposit of dark brown (10YR 3/3) sandy loam and extended from the surface to 32 cmbs (0 to 12.6 inbs). The underlying deposit was characterized as a Buried A-Horizon and was described as a very dark brown (10YR 2/2) sandy loam layer. It extended from 32 to 40 cmbs (12.6 to 15.7 inbs). The B1-Horizon was described as a layer of dark yellowish brown (10YR 4/6) sand that reached from 40 to 70 cmbs (15.7 to 27.6 inbs). The subsequent B2-Horizon consisted of a layer of yellowish brown (10YR 5/4) fine sand that extended from 70 to 88 cmbs (27.6 to 34.6 inbs). The final horizon was described as a glacially-derived C-Horizon that consisted of light gray (2.5Y 7/2) sand. This deposit was generally encountered at 88 cmbs (34.6 inbs) and continued to the base of the shovel tests at a depth of approximately 100 cmbs (39.4 inbs) (Figure 14). This soil type was present in the northwestern corner of the development area.

A typical test pit containing fill soils exhibited a single soil horizon and reached an average depth of 72 cmbs (28.3 inbs). The single horizon consisted of a deposit of fill that was described as a deposit of yellowish brown (10YR 5/4) silty loam that was mottled with dark brown (10YR 3/3) silty loam and light olive brown (2.5Y 5/6) sandy loam. This fill soil appeared to have been transported to the project area sometime in the past (Figure 15). This shovel test was mostly encountered in the southeastern portion of the development area.

Of the 109 shovel test pits excavated throughout the Project area, seven yielded post-European Contact period artifacts and six produced precontact era Native American objects. The post-European Contact period assemblage included examples of ceramic sherds, such as plain whiteware (n=1) and plain creamware (n=1), a single piece of brick, a machine-cut nail (n=1), a piece of steel wire (n=1), an iron hook (n=1), and a piece of coal (n=1). These artifacts have a general date range of the late-eighteenth through the twentieth century (Photo 4). These artifacts were recovered in low densities from predominantly plowzone (n=4) horizons and disturbed subsoil (n=3) contexts throughout the Project area. Due to the post-European Contact period material not being recovered in significant concentrations or in association with either above or below ground cultural features, this material was characterized as field scatter. The post-European Contact period artifacts lack research potential and the qualities of significance applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional examination of post-European Contact period field scatter is recommended prior to Project construction.

The precontact era assemblage identified during the Phase IB survey originated from three areas spread throughout the Project area. They were designated as Loci 1 through 3 (see Figure 12). While Site 164-79 has been recorded outside the project area, due to its close proximity to the Project area it is possible that the recovered precontact era materials are associated with its occupation. Site 164-79, which is also known as the Atkinson Site (Locus 1), is a precontact era camp site that was identified and recorded by Heritage during a Phase IB survey and a subsequent Phase II National Register testing and evaluation effort completed in 2020.

The precontact assemblage recovered from Site 164-79 by Heritage consisted of 1 chert Atlantic projectile point, 1 rhyolite secondary flake, 2 basalt secondary flakes, 47 chert secondary flakes, 1 chert projectile point tip, 2 quartz primary reduction flakes, 14 quartz secondary flakes, 1 calcined bone fragment and 21 pieces of fire-cracked rock (FCR) from the Ap-Horizon. The excavations also resulted in the collection of a ground stone hoe, 1 chert retouched flake, 49 chert secondary flakes, 1 burned secondary chert flake, 1 chert Wayland projectile point, 3 rhyolite secondary flakes, 34 quartz secondary flakes, 13 pieces of quartz shatter, 1 untyped quartz narrow stemmed projectile point, 1 utilized quartz flake, 65 FCR, and 5 calcined bone fragments from the subsoil. Given the wide variety of materials and artifacts, as well as the overall integrity of the site, Heritage assessed Site 164-79 as eligible for listing to the National Register of Historic Places under Criterion D of the criteria for evaluation (36 CFR 60.4 [a-d]). The results of the Phase IB Survey of Loci 1 through 1 3 are discussed below.

Locus 1

Locus 1 was identified in the northwestern corner of the Project area and was characterized as a multi-component occupation. It initially produced a single quartz distal flake fragment from the plowzone (Figure 12). Delineation of the locus area through the excavation of six delineation test pits led to the recovery of a single chert medial flake fragment and a single piece of quartzite angular debris, as well as the previously mentioned iron hook (Photos 5 and 6). In addition, the excavation of Shovel Test T1, P1 led to the identification of a Buried A-Horizon, as well as an oval stain containing large amounts of charcoal flecking at the B-Horizon interface; it was designated as Feature 1. Feature 1 was identified in the profile of the southern and western walls of Shovel Test T1, P1 (Figure 14; Photos 7 and 8). The feature extends from 45 to 65 cmbs (17.7 to 25.6 inbs).

The cultural material associated with Locus 1 is likely associated with the intact Buried A-Horizon and Feature 1. This component of the site exhibits depositional integrity and possibly retains research potential. It was assessed as potentially eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). In order to avoid any major impacts to Locus 1, the Project will be reconfigured to reduce the array area size to avoid the locus. Further, in an effort to reduce potential visual impacts to the surrounding area, evergreens will be planted around the perimeter of the Project in this area. Heritage recommends that a single shovel test pit be placed at each evergreen location within the vicinity of Locus 1 prior to planting.

Locus 2

Locus 2 was identified in the western portion of the development area, approximately 50 meters (164 feet) to the south of Locus 1. It contained evidence of both post-European Contact period and Precontact era Native American components (Figure 12). The single post-European Contact period artifacts recovered from Locus 2 consisted of a piece of coal. The coal fragment originated from the B-Horizon and was interpreted as an infiltrated find. The post-European Contact period material found within Locus 2 is not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]).

Shovel testing of the Locus 2 area also led to the recovery of a single chert biface thinning flake fragment from the plowzone and a single chert biface retouch flake fragment from the subsoil. In addition, Shovel Test T5, P1 yielded a single chert biface retouch flake fragment from the plowzone (Photos 9 and 10). While Locus 2 has been subject to plowing in the past, it may contain intact subsoil deposits associated with a precontact era Native American use of the area, possibly associated with Site 164-79. As a result, it was assessed potentially eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). Since this area cannot be avoided during construction, it is recommended that Locus 2 be subjected to Phase II National Register of Historic Places testing and evaluation prior to Project development.

Locus 3

Locus 3 was identified on the southern boundary of the proposed development area (Figure 12). Shovel Test T13, P2 in this area produced 2 chert flakes and a single chert biface retouch flake fragment from the plowzone, as well as a chert biface thinning flake fragment and 2 pieces of FCR from the subsoil (Photos 11 and 12). Despite thorough and careful delineation of the test pit, no further cultural material was identified. Although no cultural features were identified within Shovel Test T13, P2, it is likely that the FCR indicates that a remnant hearth or roasting platform is located within close proximity to the area; this is further indicated by the thermal alteration visible on one of the chert flakes recovered from the plowzone. While Locus 3 has been subjected to limited previous disturbances associated with agricultural activities, the recovery of lithic debitage (n=1) and from within intact subsoils indicates the presence of intact cultural deposits that are may be associated with Site 164-79. Thus, the Project plans will be redesigned in this areas to ensure that the footprint of the proposed Project will not impact Locus 3. So long as that is the case, no additional archaeological examination of Locus 3 is recommended prior to construction. If the Project plans cannot be altered, Phase II National Register of Historic Places testing and evaluation of Locus 2 prior to Project development is recommended.

Structures 1, 2, and 3

In addition, the pedestrian survey portion of the Phase IB survey resulted in the identification of three tobacco barns in the vicinity of the Project area; they were designated as Structures 1, 2, and 3 (Figure 12). The three structures, which are tobacco sheds, are present on the 1934 aerial photograph, suggesting that their construction predates that year (Figure 5). Structures 1 through 3 are characterized as timber frame buildings with a gable roof line and remain in fair condition. In addition, Structures 1 through 3 are centered on a central double barn door entrance on both of their gable ends. Structure 1 measures approximately 20 m (65.6 feet) in a north-south direction and 10 m (32.8 feet) along an east-west axis. This structure directly abuts the southern boundary of the Project area (Photos 13 and 14; Figure 12). Structure 2 extends for approximately 75 m (246.1 feet) on an east-west axis and 10 m (32.8 feet) in a north-south direction and abuts the development parcel on its western, northern, and eastern sides (Photos 15 and 16; Figure 12). Structure 3 is situated approximately 25 m (82 feet) to the south of the Project area. It measures approximately 75 m (246 feet) in length and 10 m (32.8 feet) in width. Currently, the buildings will not be affected by Project construction.

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APPENDIX A

FIGURES

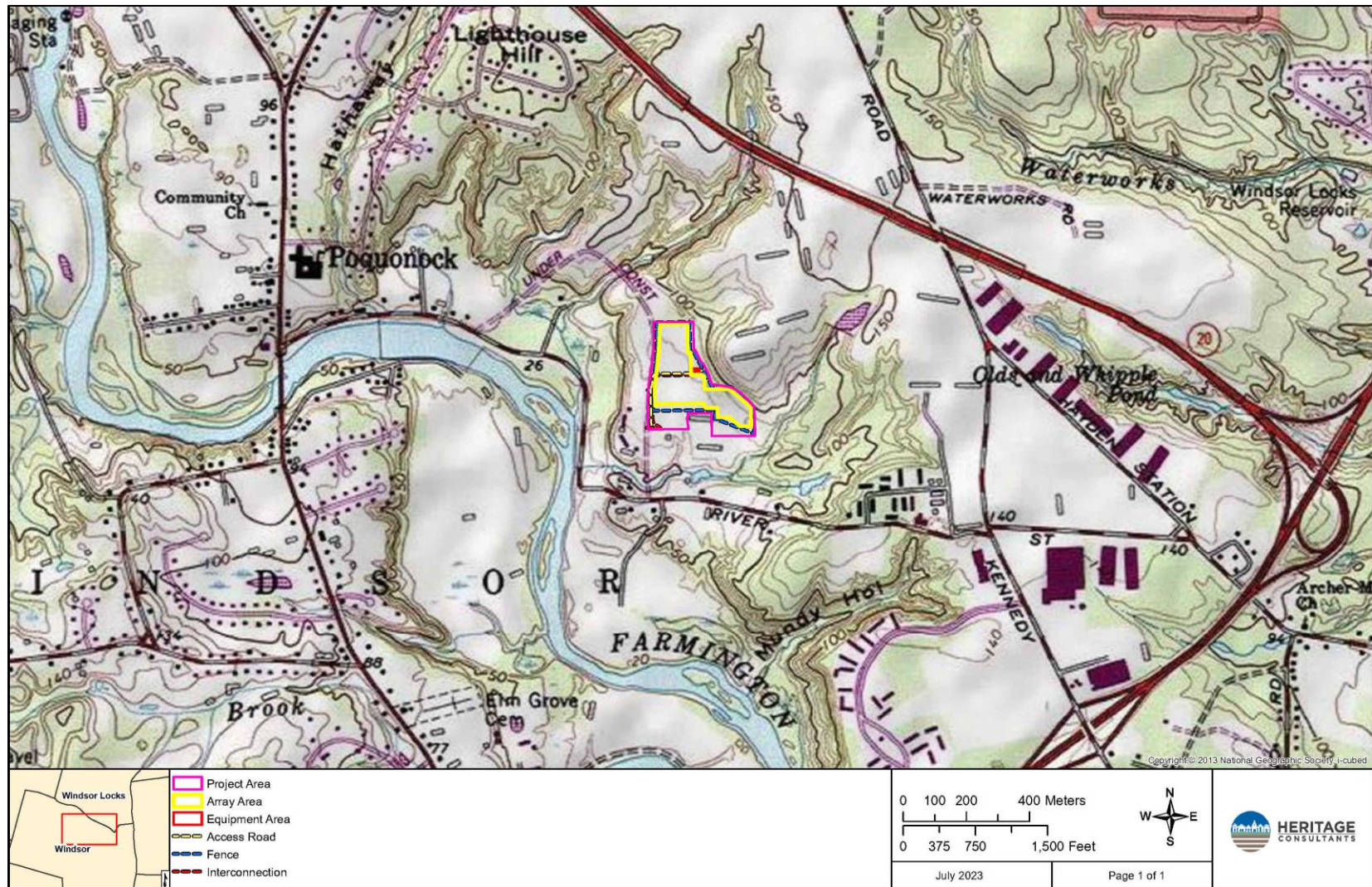


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project parcel in Windsor, Connecticut.

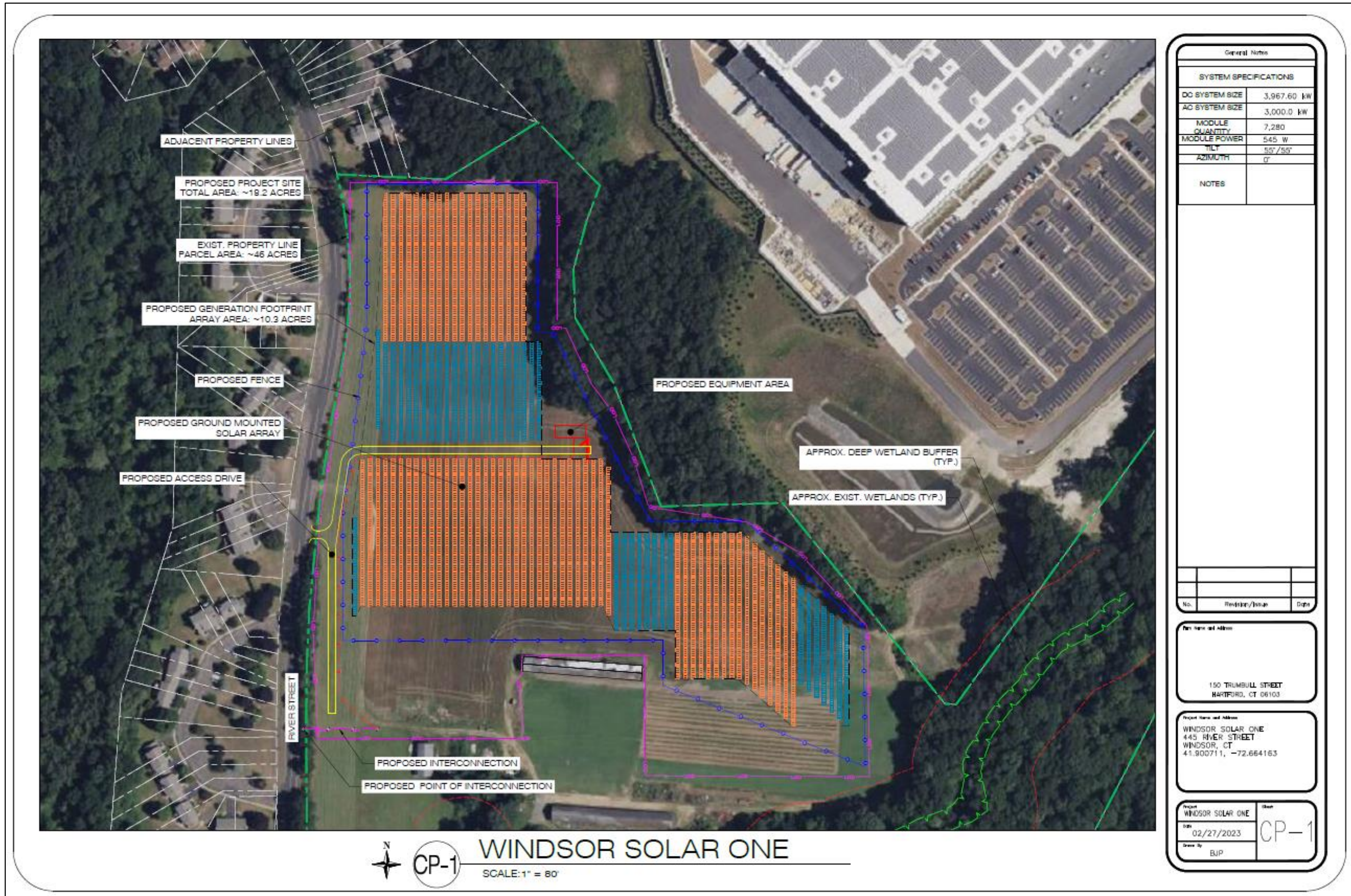


Figure 2. Proposed project plans for the solar Facility at 445 River Street in Windsor, Connecticut.

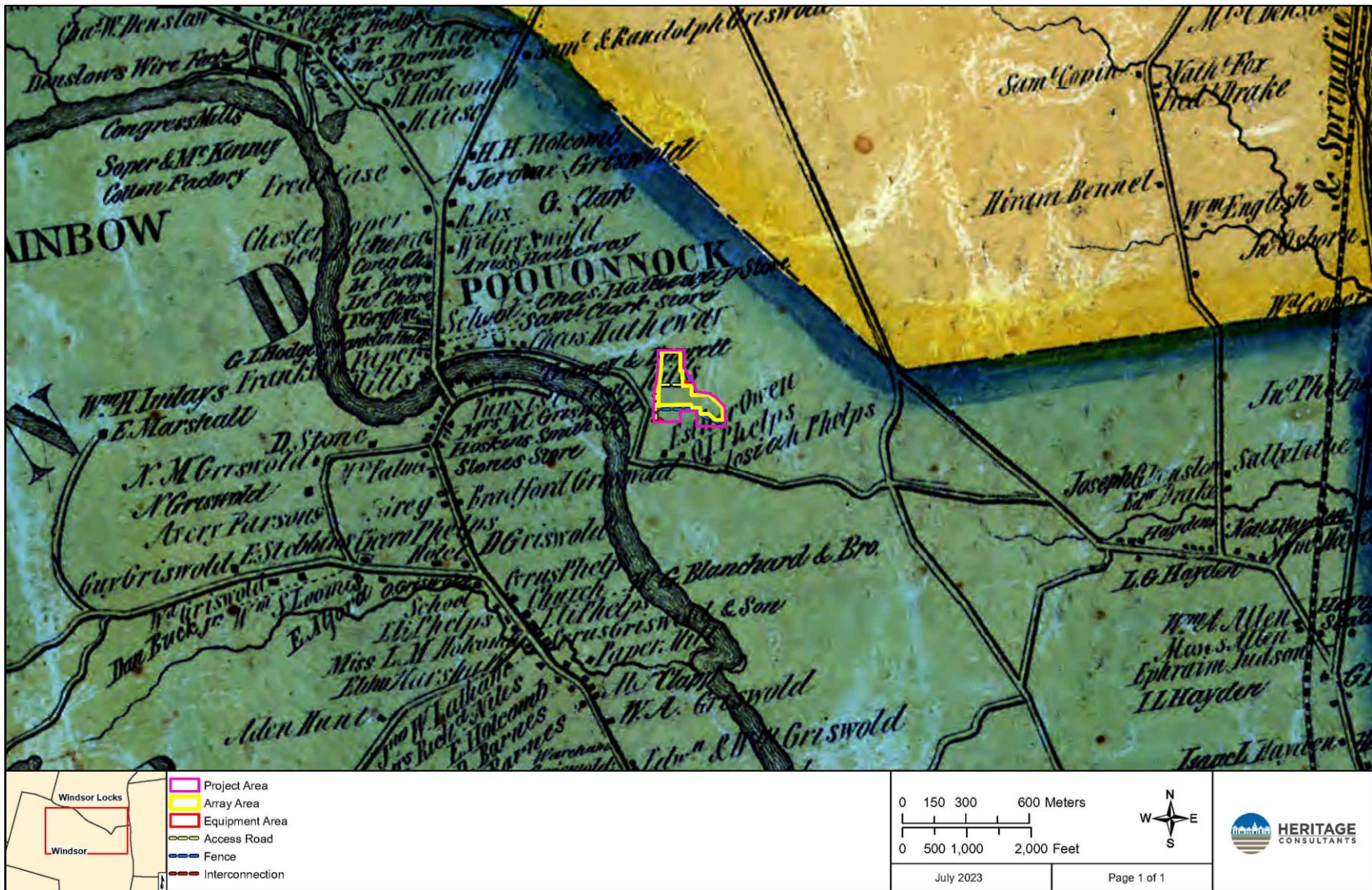


Figure 3. Excerpt from an 1855 map showing the location of the project parcel in Windsor, Connecticut.

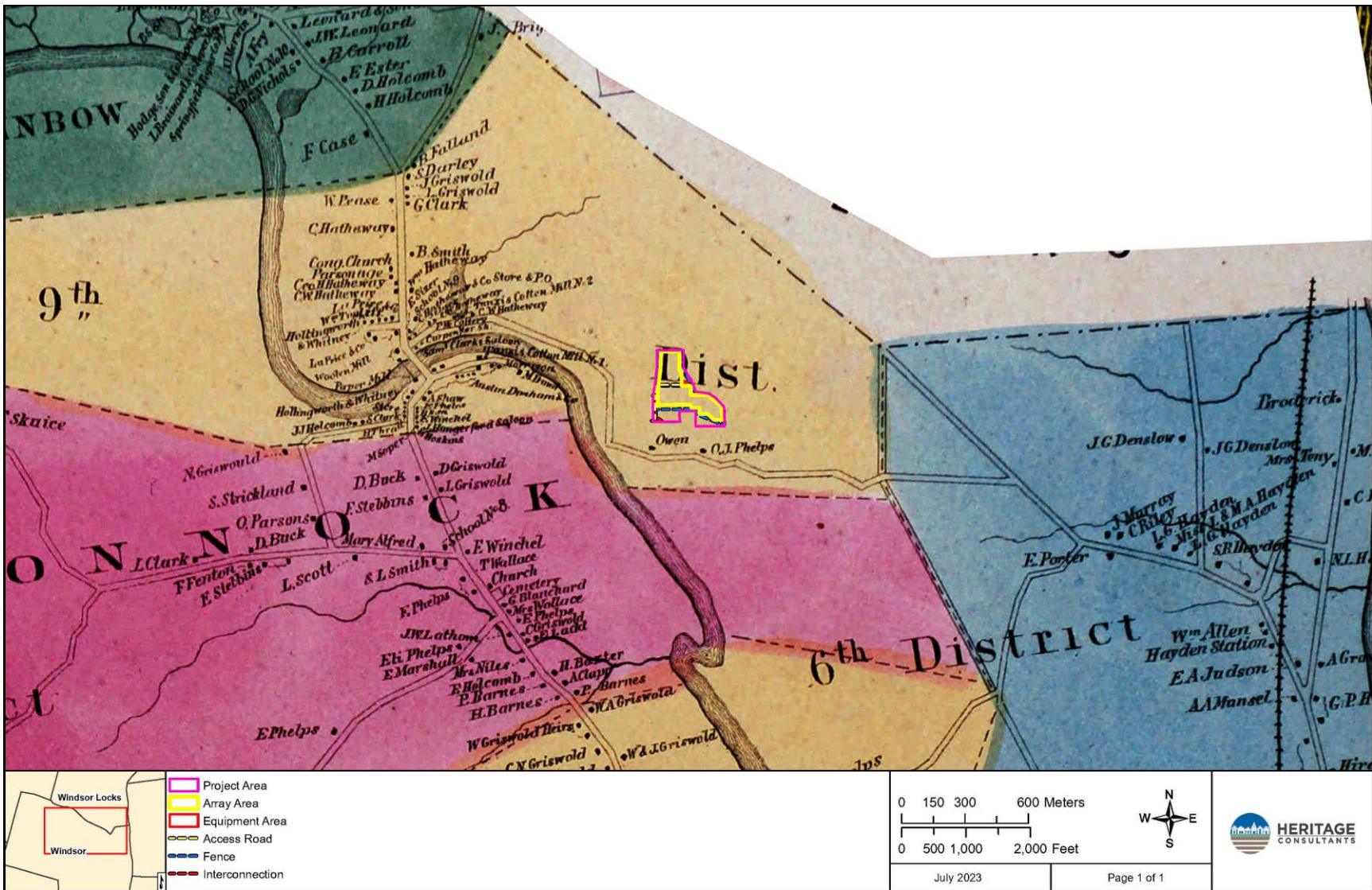


Figure 4. Excerpt from an 1869 map showing the location of the project parcel in Windsor, Connecticut.

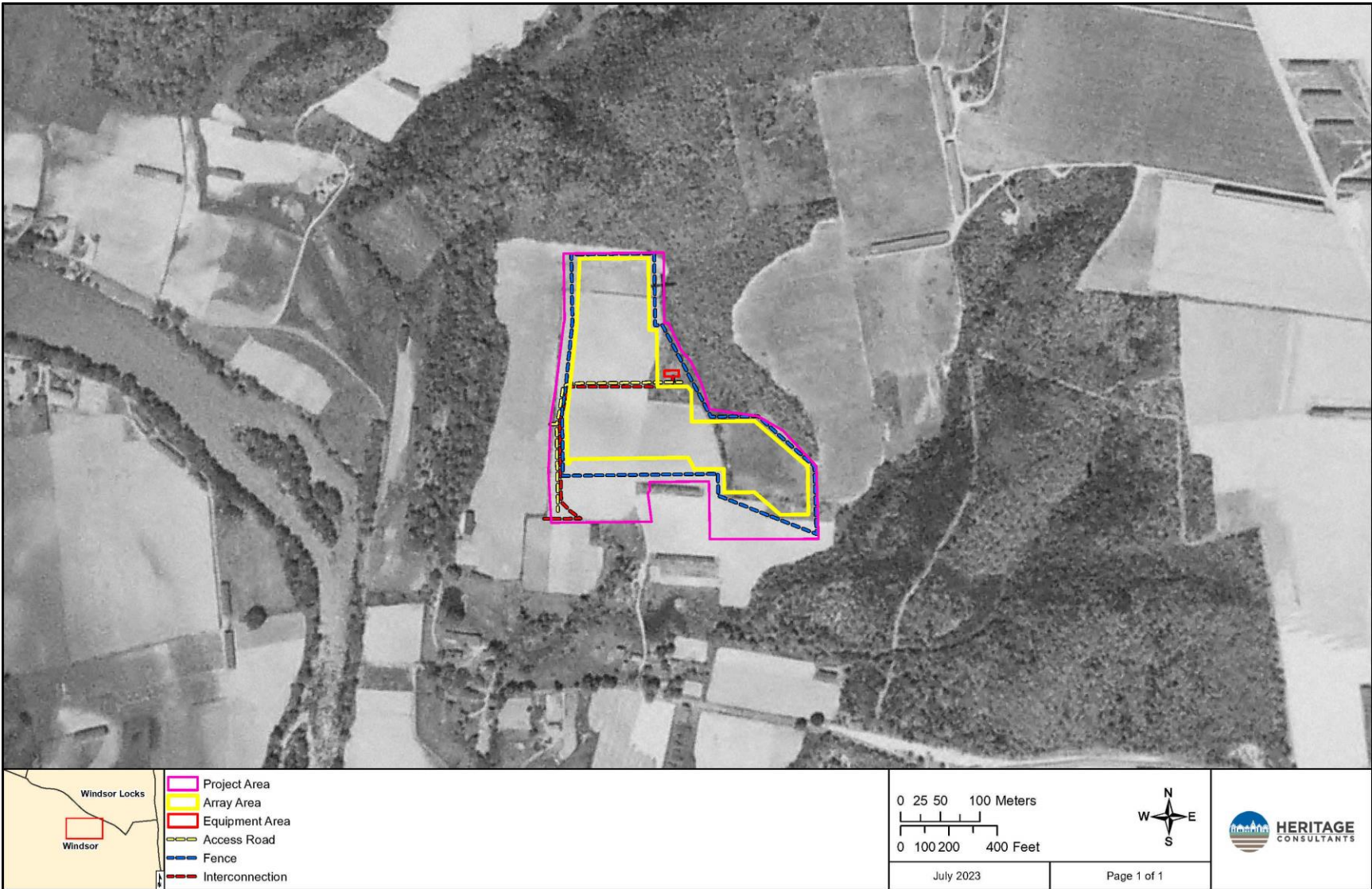


Figure 5. Excerpt from a 1934 aerial photograph showing the location of the project parcel in Windsor, Connecticut.

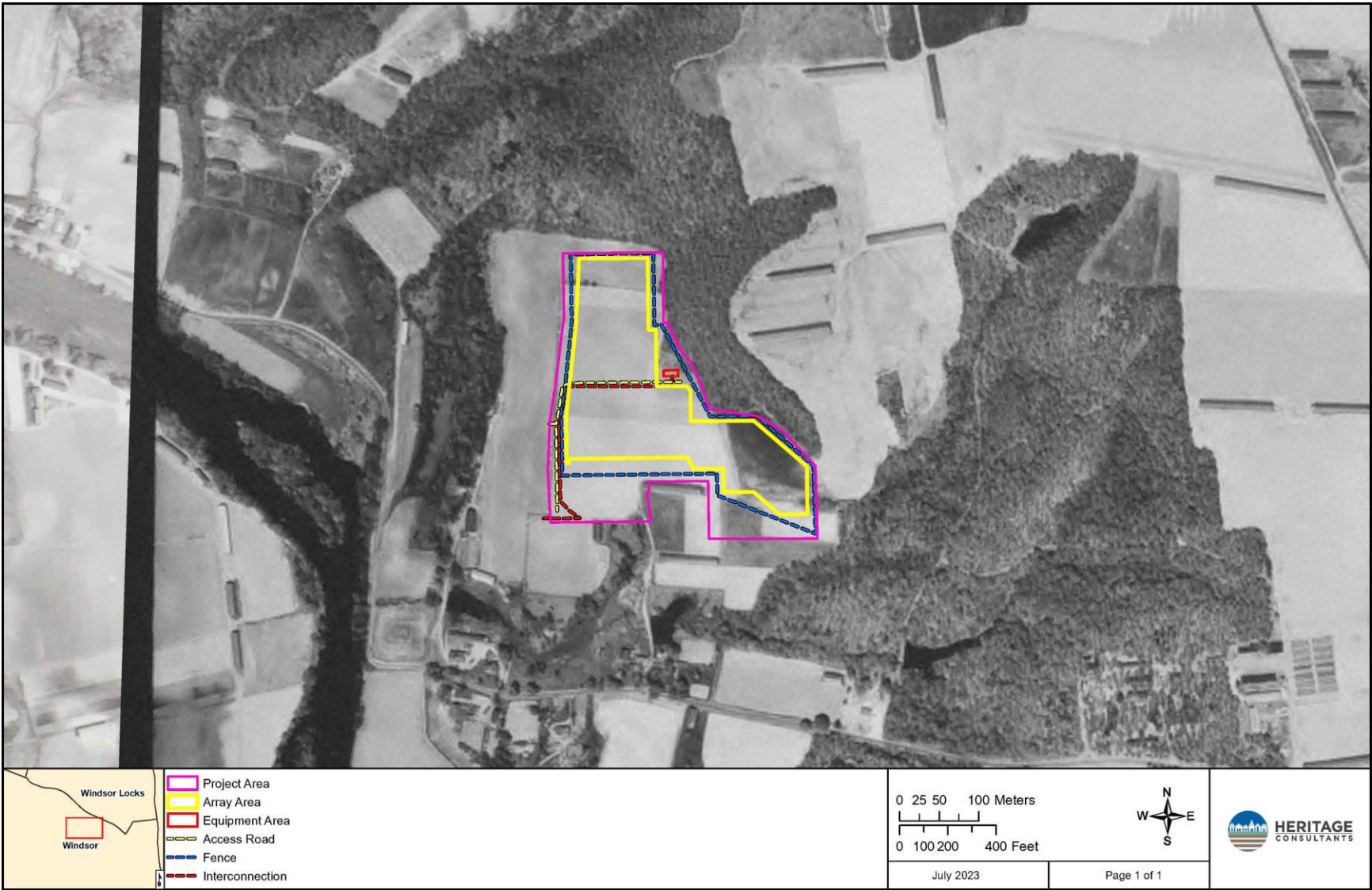


Figure 6. Excerpt from a 1951 aerial photograph showing the location of the project parcel in Windsor, Connecticut.

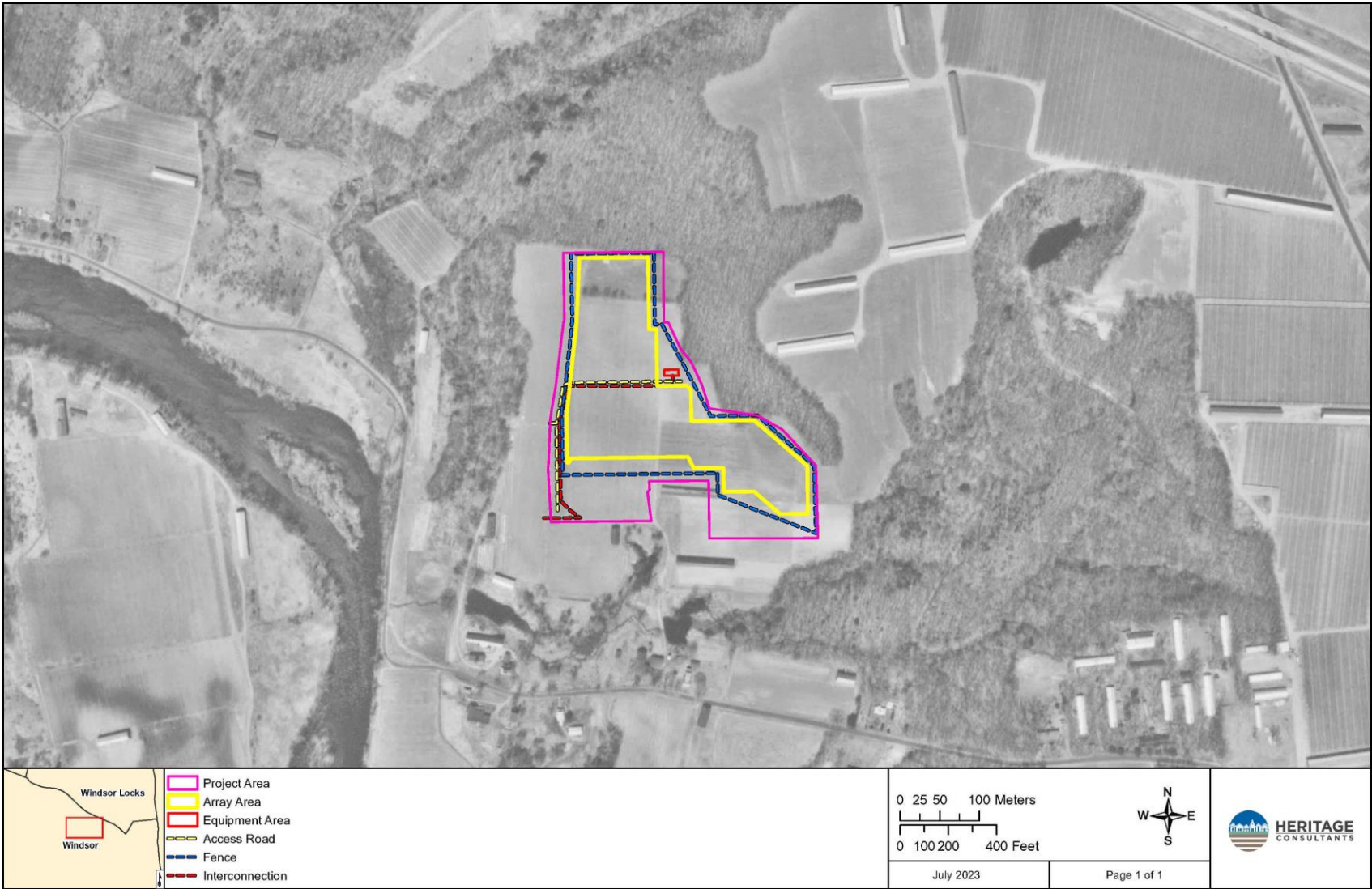


Figure 7. Excerpt of a 1970 aerial photograph showing the location of the project parcel in Windsor, Connecticut.

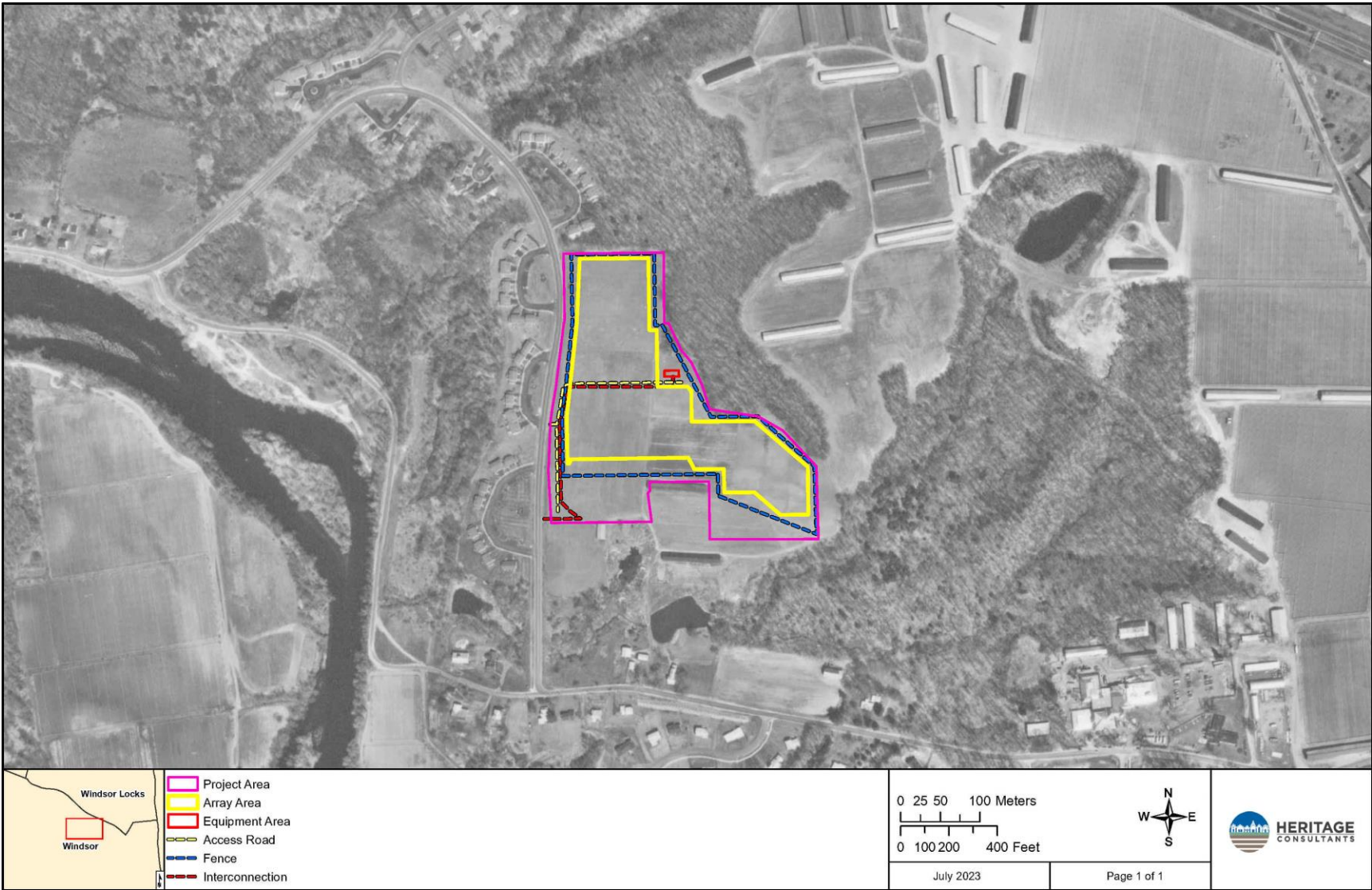


Figure 8. Excerpt of a 1990 aerial photograph showing the location of the project parcel in Windsor, Connecticut.

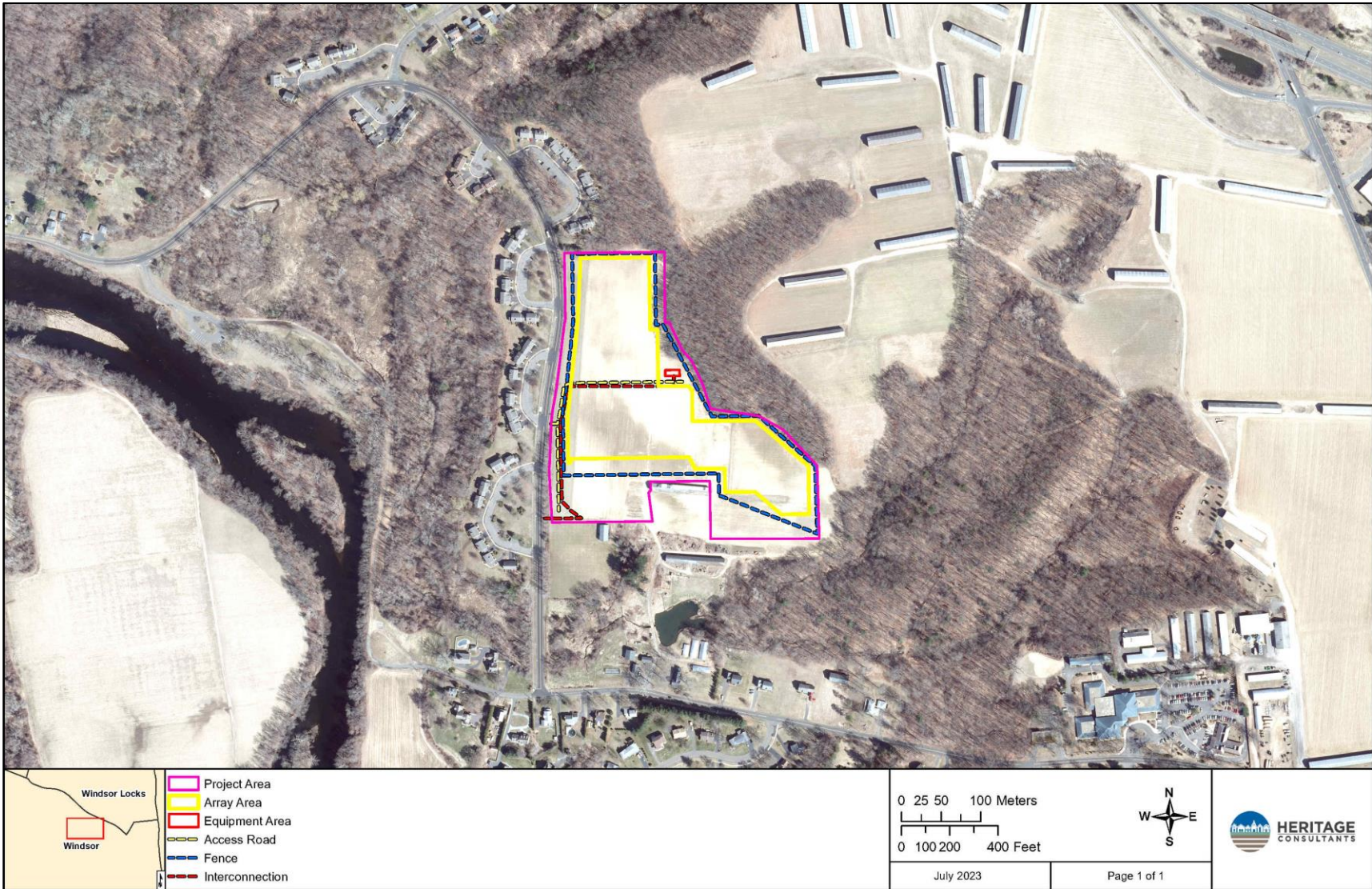


Figure 9. Excerpt of a 2019 aerial photograph showing the location of the project parcel in Windsor, Connecticut.

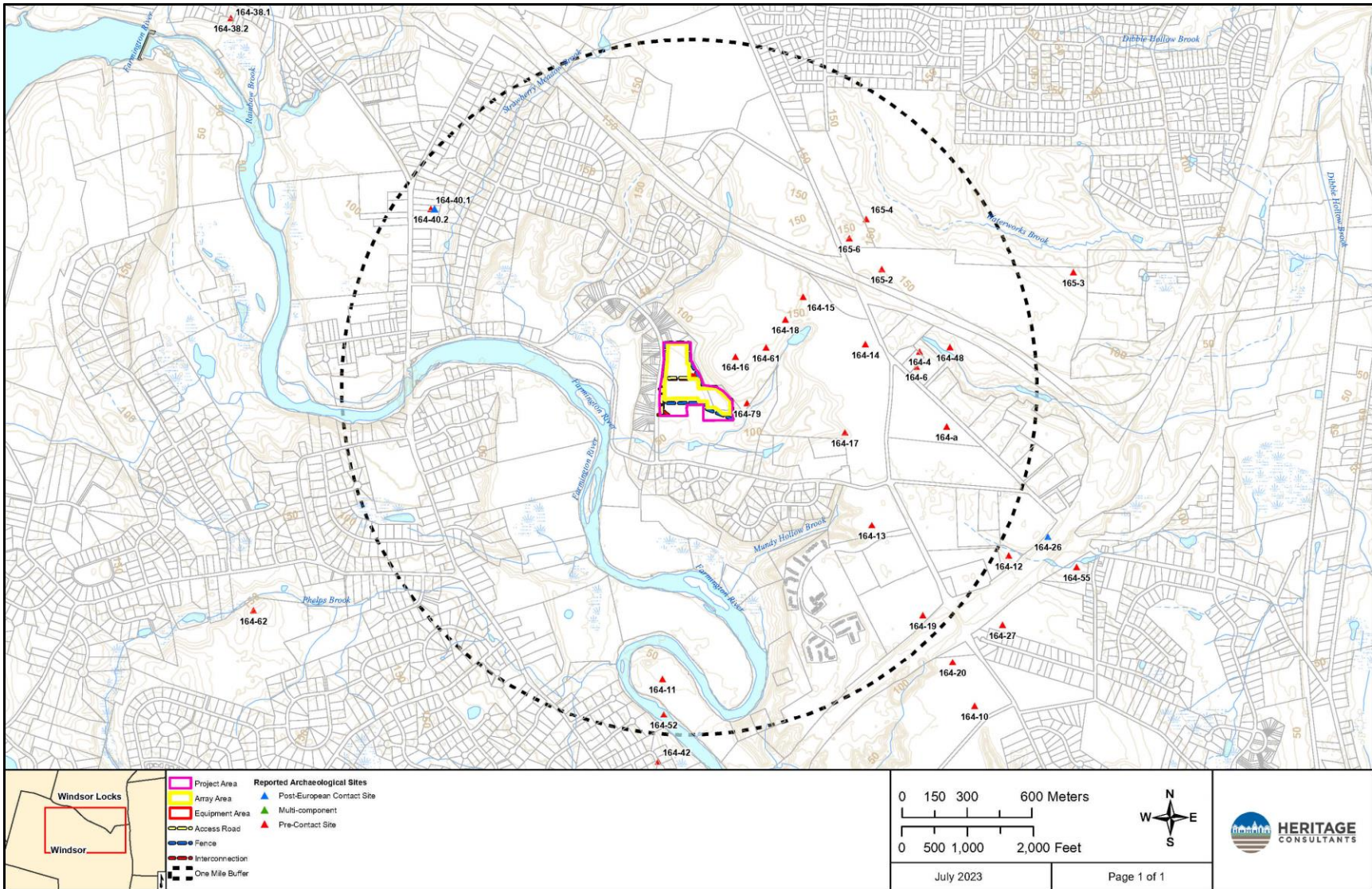


Figure 10. Digital map depicting the locations of the previously identified archaeological sites in the vicinity of the project parcel in Windsor, Connecticut.

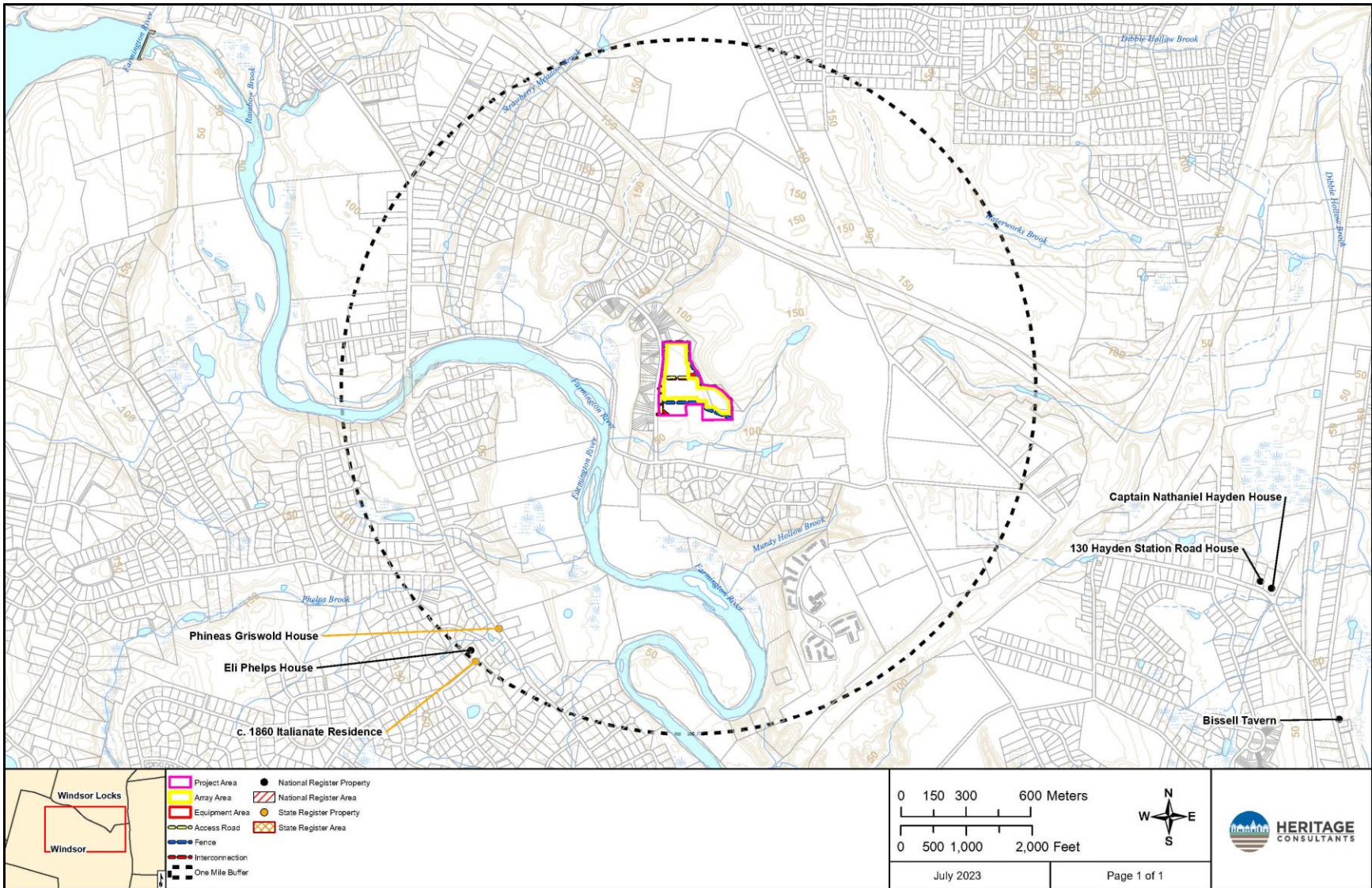


Figure 11. Digital map depicting the locations of the previously identified National Register of Historic Places and State Register of Historic Places properties in the vicinity of the project parcel in Windsor, Connecticut.

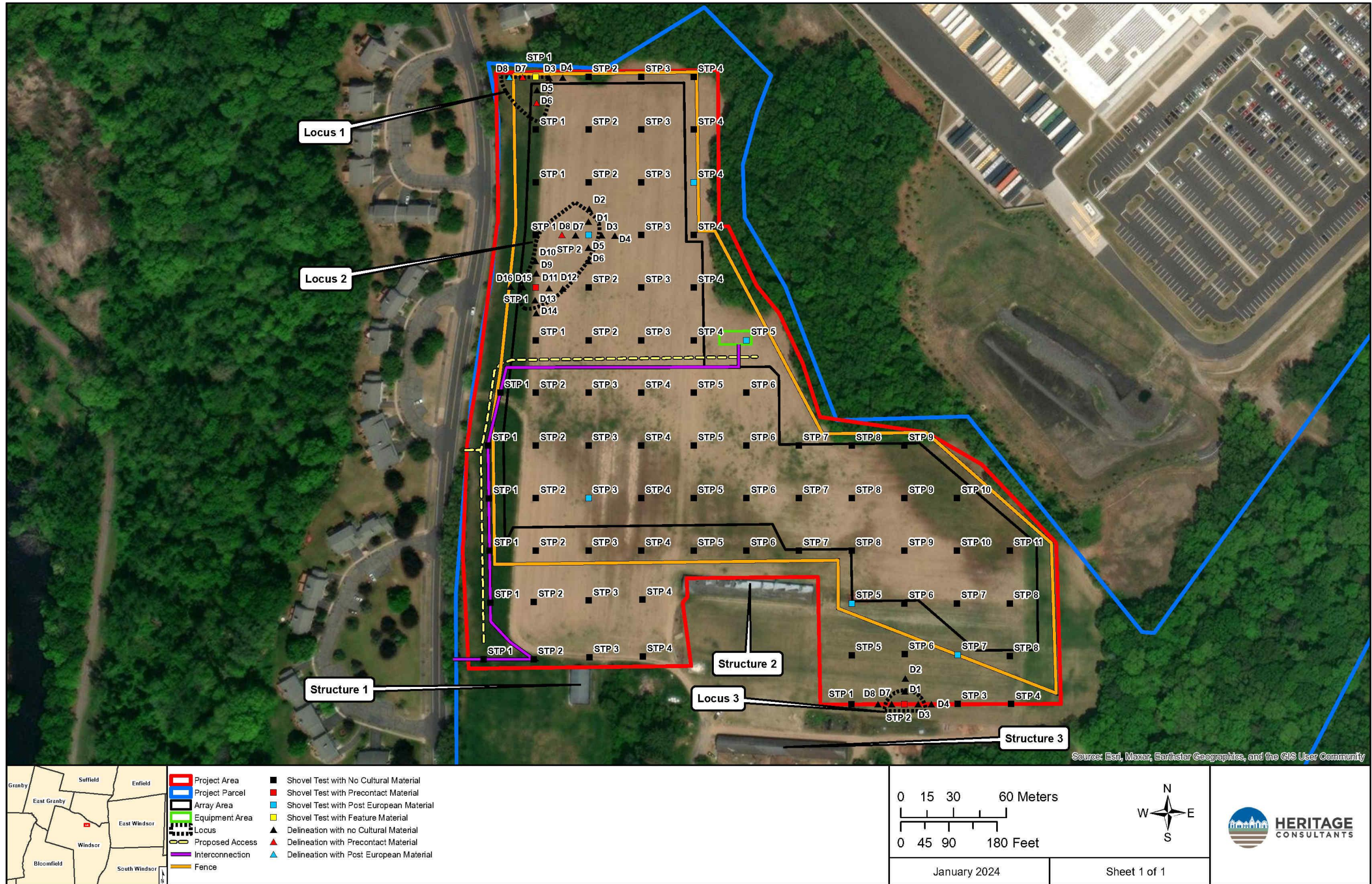


Figure 12. Excerpt from a 2019 aerial photograph showing Phase IB shovel tests and results in the development area in Windsor, Connecticut.

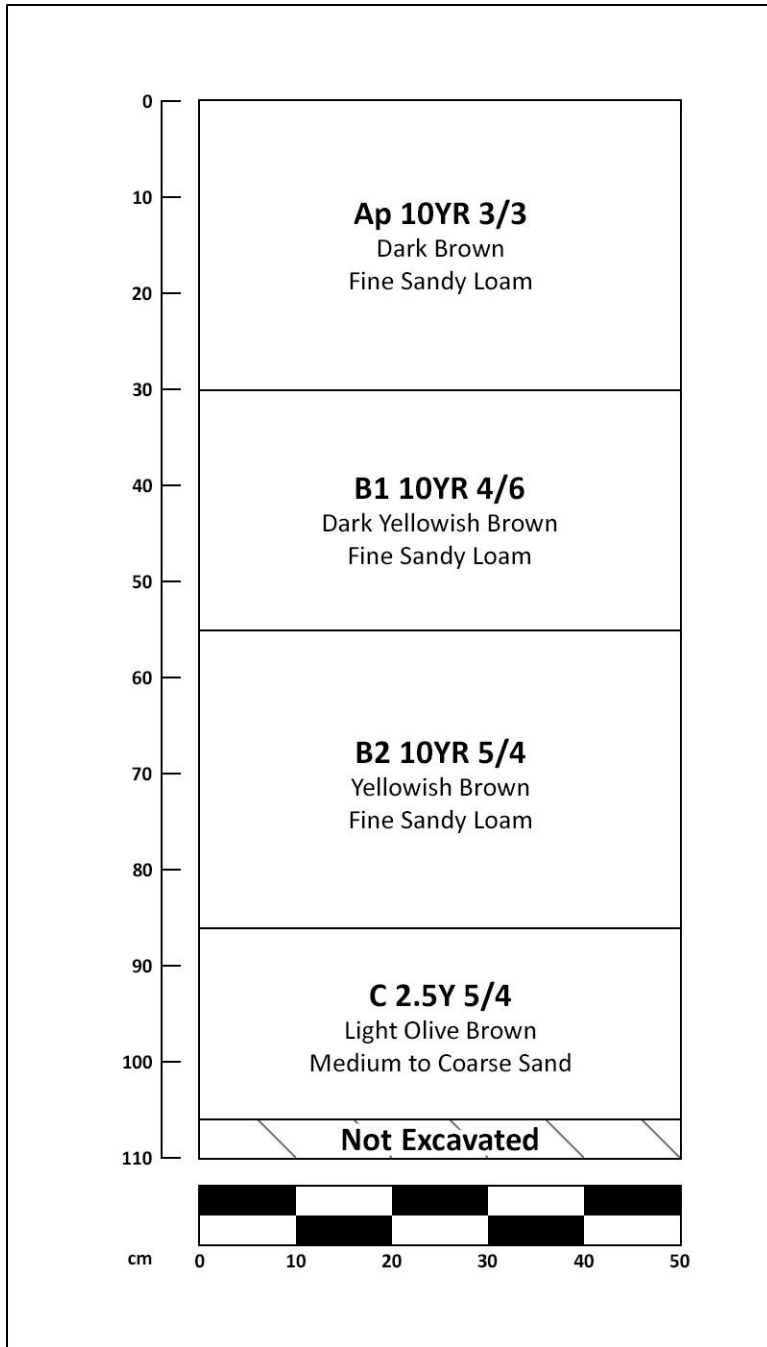


Figure 13. Digital recreation of soil profile from Shovel Test Pit T4P2 in the development area.

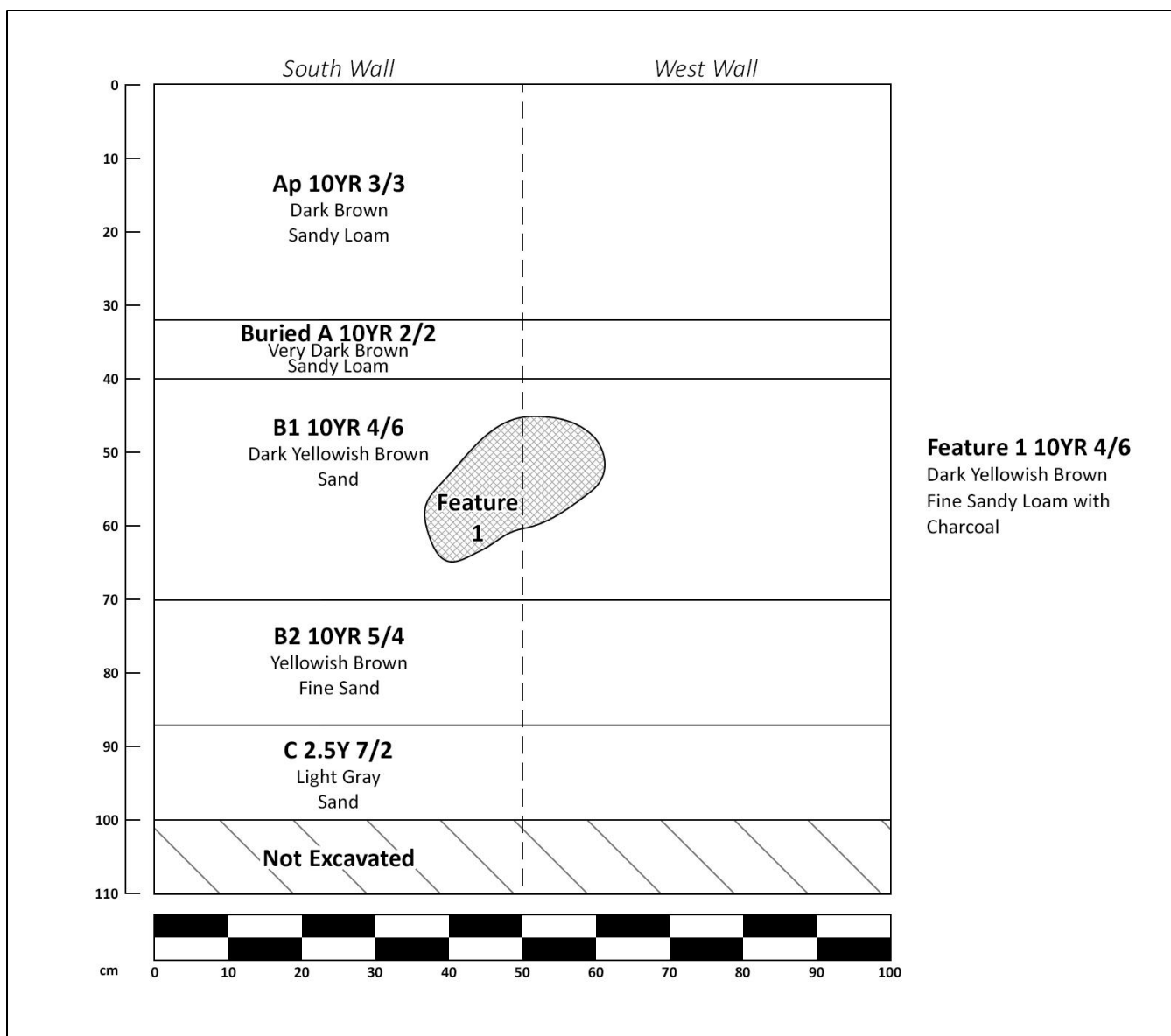


Figure 14. Digital recreation of soil profile from Shovel Test Pit T1P1 and Feature 1 in the development area.

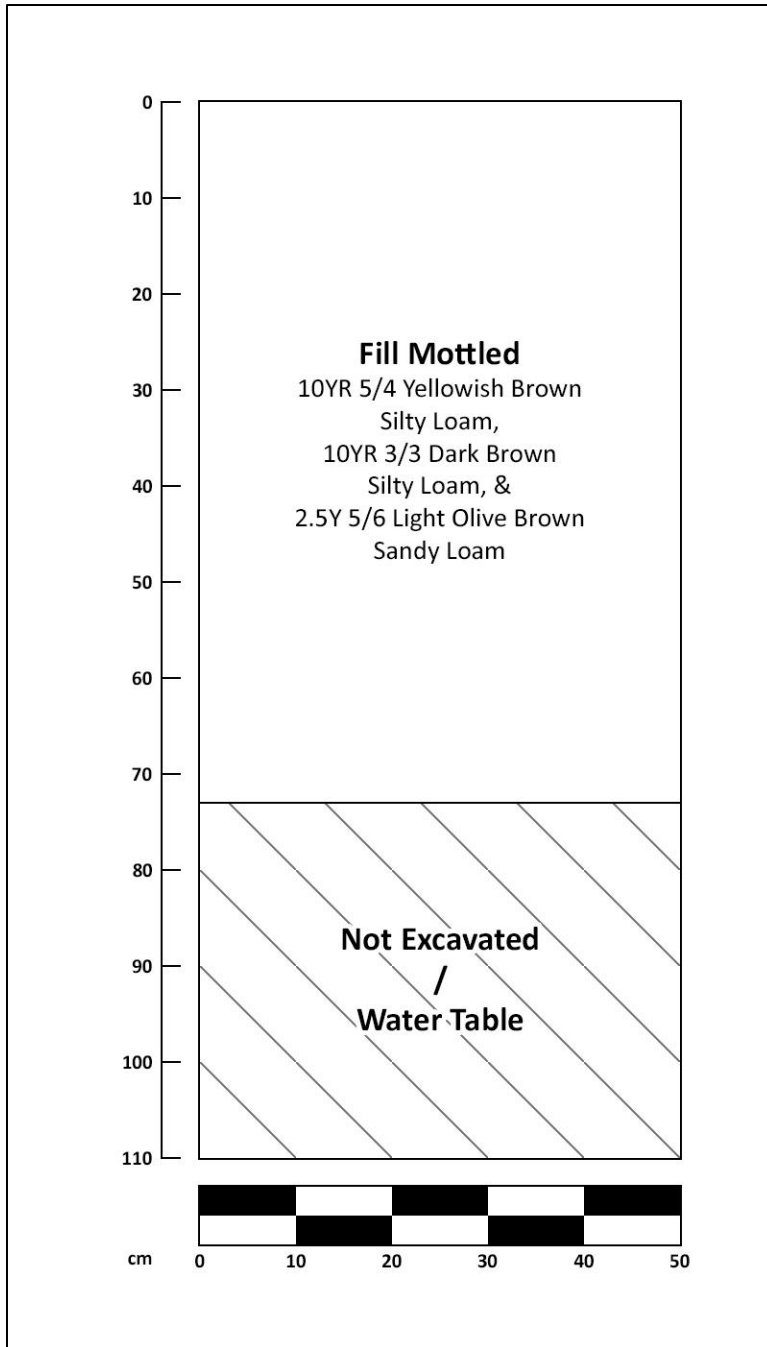


Figure 15. Digital recreation of soil profile from Shovel Test Pit T8P9 in the development area.

APPENDIX B

PHOTOS



Photo 1. Overview photo of development area. Photo taken facing west.



Photo 2. Overview photo from northwestern corner of the development area with Structures 1 and 2 in the background. Photo taken facing south.



Photo 3. Overview of the eastern portion of the development area. Photo taken facing to east.



Photo 4. Representative photo of post-European Contact period artifacts recovered from the development area. A) Whiteware sherd; B) Creamware sherd; C) Hook fragment; D) Machine-cut nail.



Photo 5. Precontact assemblage recovered from Locus 1; Side A. A) quartz distal flake fragment; B) chert medial flake fragment; C) quartzite angular debris.



Photo 6. Precontact assemblage recovered from Locus 1; Side B. A) quartz distal flake fragment; B) chert medial flake fragment; C) quartzite angular debris.



Photo 7. Overview of T1P1 that contains Feature 1. Photo facing to the south.



Photo 8. Closeup photo of Feature 1 profile in the south and west walls. Photo facing to the south.



Photo 9. Precontact era assemblage recovered from Locus 2; Side A. A) chert biface thinning flake fragment; B) chert biface retouch flake fragment; C) chert biface retouch flake fragment.



Photo 10. Precontact era assemblage recovered from Locus 2; Side B. A) chert biface thinning flake fragment; B) chert biface retouch flake fragment; C) chert biface retouch flake fragment.



Photo 11. Representative photo of precontact era assemblage recovered from Locus 3; Side A. A) thermally altered chert medial flake fragment; B) chert distal flake fragment; C) chert biface retouch flake fragment; D) chert biface thinning flake fragment.

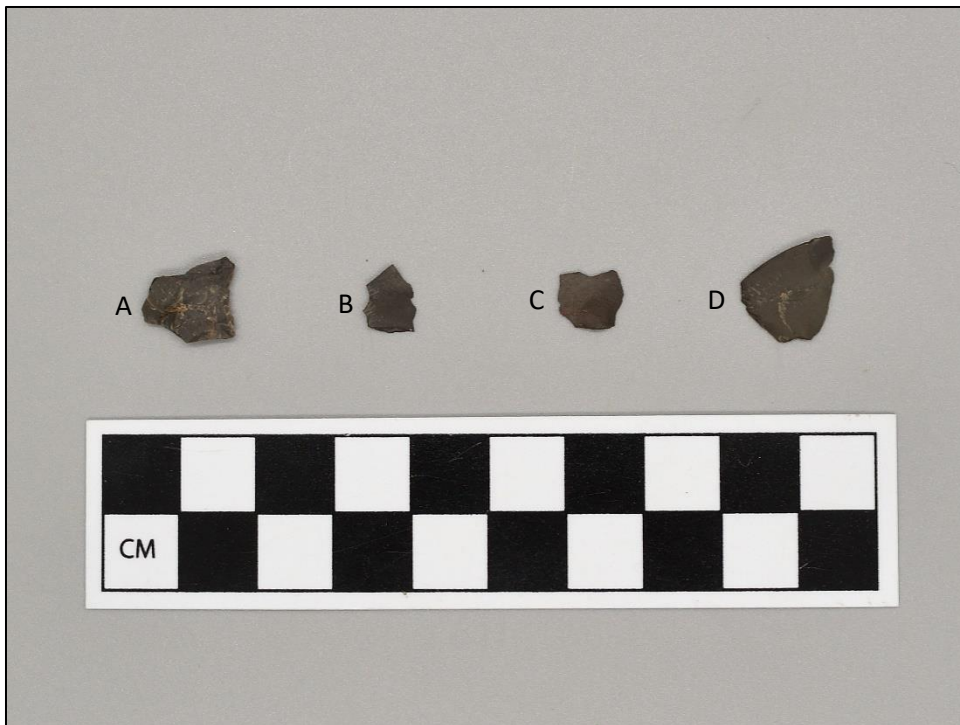


Photo 12. Representative photo of precontact era assemblage recovered from Locus 3; Side B. A) thermally altered chert medial flake fragment; B) chert distal flake fragment; C) chert biface retouch flake fragment; D) chert biface thinning flake fragment.



Photo 13. 3/4 view of north elevation of Structure 1. Photo facing to the southeast.



Photo 14. 3/4 view of south elevation of Structure 1. Photo facing to the northeast.



Photo 15. 3/4 view of the west elevation of Structure 2. Photo facing to the southeast.



Photo 16. 3/4 view of the east elevation of Structure 2. Photo facing to the southwest.



March 6, 2024

Mr. Steve Kochis
Senior Project Manager
Vanasse Hangen Brustlin, Inc.
100 Great Meadow Road, # 200
Wethersfield, Connecticut 06109

RE: End-of-Fieldwork Summary for Phase II National Register Testing and Evaluation of Archaeological Resources Associated with the Proposed Windsor Solar One Project in Windsor, Connecticut

Mr. Kochis:

This letter is to provide an End-of-Fieldwork Summary for Phase II National Register testing and evaluation of archaeological resources identified during the previous Phase IB cultural resources reconnaissance survey of the project parcel associated with the proposed Windsor Solar One Project in Windsor, Connecticut. As detailed in our previous Phase IB cultural resources reconnaissance survey report, which was discussed with and approved by the Connecticut State Preservation Office in a recent telephone conversation, three archaeological loci (Loci 1 through 3) were identified within the limits of the development area and all of them yielded evidence of precontact era Native American occupations. Locus 1 was recorded in the northwestern limits of the planned solar array and the Project parcel, whereas Locus 2 was noted within the center of the Project parcel where the array will be located. Locus 3 was identified in the southeastern portion of the Project parcel; it was not subjected to Phase II National Register testing and evaluation because the project sponsor has committed to keep the Project work limits outside of the Locus 3 area as originally proposed to the Connecticut Siting Council.

While Loci 1 and 2 yielded a limited number of artifacts (stone tool manufacturing debris) during the Phase IB survey, the recovered materials originated from what appeared to be intact soil deposits, suggesting that the loci might have been undisturbed as well. This led to the determination that Loci 1 and 2 may have retained research potential and the qualities of significance applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). The CT-SHPO agreed with Heritage's findings and Phase II testing and evaluation was recommended in February of 2024. This included the excavation of additional shovel tests pits at 10 meters (30.4 feet) throughout the two loci areas, as well as the excavations of two larger 1 x 1 meter (3.3 x 3.3 foot) excavation units in areas of higher artifact concentrations. The purpose of the Phase II work was to identify the boundaries of Loci 1 and 2; to collect a larger sample of artifacts from each locus in an attempt to date the occupations; to identify potential cultural features that might provide insights into the use of Loci 1 and 2; to assess the depositional integrity of the areas; and to determine if the two loci retain research potential and are thus eligible for listing on the National Register of Historic Places eligibility applying the criteria for evaluation (36 CFR 60.4 [a-d]).

Phase II testing within the Locus 1 area in the northwestern portion of the Project parcel included the excavation of 13 shovel tests measuring 50 x 50 centimeters (20 x 20 inches) in size. This resulted in the recovery of only 2 quartz flakes and 1 chert flake. None of these precontact are Native American artifacts

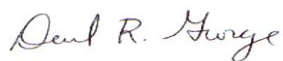
could be assigned to a particular time period or cultural affiliation. In addition, the Phase II testing of Locus 1 also failed to yield any evidence of intact cultural features (e.g., hearths, storage pits, caches, etc.). Thus, the Phase II excavation revealed that Locus 1 lacks research potential and is not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). It should be noted that the Project proponent has opted to remove a portion of the solar array from this area and to instead plant vegetative screening. No additional archaeological examination of Locus 1 is recommended prior to construction.

In addition, Heritage field staff also excavated 26 additional shovel tests at 10 meter (30.4) foot intervals throughout the Locus 2 area. Field staff also completed the excavation of two 1 x 1 meter (3.3 x 3.3 foot) units within this locus. These excavations resulted in the collection of 3 chert flakes, none of which could be assigned to a particular precontact era Native American time period or cultural affiliation. In addition, despite the intensive excavations, no evidence of precontact era Native American cultural features was identified within the Locus 2 area. As a result, Heritage determined that Locus 2 is also not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). As is the case with Locus 1, no additional archaeological examination of Locus 2 is recommended prior to construction.

Finally, Heritage completed the excavation of six additional shovel tests to the south of a tobacco shed located in along the southern edge of the parcel because this area may be used as part of the solar development. Of these shovel tests, four yielded artifacts dating from the post-European Contact period. They consisted of examples of nails, brick, coal, and ceramic sherds. These materials date from late nineteenth and twentieth centuries. They were not found in association with any post-European Contact period cultural features or architectural remains. Thus, they were interpreted as typical farm-related field scatter. The archaeological deposits found to the south of the tobacco shed are also not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological testing of this area is recommended prior to Project construction.

Heritage is currently completing a full report for the Phase II National Register testing and evaluation effort. It will be submitted to the CT-SHPO for review and comment in the near future. If you have any questions regarding this letter, or if we can be of additional assistance with this or with any other project you may have, please do not hesitate to contact me at (860) 299-6328. Alternatively, you may contact me via email at dgeorge@heritage-consultants.com. We are at your service.

Sincerely,



David R. George, M.A., R.P.A.
Heritage Consultants, LLC

Sediment Trap Sizing
Windsor Solar One
Revised March 2024

*(134 cy / acre)**

TST #	Tributary Acreage, ac	Volume Required Below Top of Spillway, cf	Volume Provided in Permanent Basin Below Top of Spillway, cf
1	11.0	39,798	44,039

* Per 2002 Connecticut Guidelines for Soil Erosion and Sediment Control

Summary for Pond 1: (new Pond)

[43] Hint: Has no inflow (Outflow=Zero)

Volume	Invert	Avail.Storage	Storage Description
#1	70.00'	1.011 af	230.00'W x 105.00'L x 1.70'H Prismatoid Z=3.0

Device	Routing	Invert	Outlet Devices
#1	Primary	71.00'	20.0' long + 1.0 ' SideZ x 5.0' breadth Broad-Crested Rectangular Weir Head (feet) 0.20 0.40 0.60 0.80 1.00 1.20 1.40 1.60 1.80 2.00 2.50 3.00 3.50 4.00 4.50 5.00 5.50 Coef. (English) 2.34 2.50 2.70 2.68 2.68 2.66 2.65 2.65 2.65 2.65 2.67 2.66 2.68 2.70 2.74 2.79 2.88

Primary OutFlow Max=0.00 cfs @ 5.00 hrs HW=0.00' (Free Discharge)

←1=**Broad-Crested Rectangular Weir**(Controls 0.00 cfs)

Pond 1: (new Pond)

Hydrograph

