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PHASE IA CULTURAL RESOURCES ASSESSMENT & PHASE IB CULTURAL
RESOURCES RECONNAISSANCE SURVEY OF THE PROPOSED SALEM LANDING
DEVELOPMENT PROJECT AT 496 NEW LONDON ROAD
IN SALEM, CONNECTICUT

PREPARED FOR:

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Civil | Structural | Survey

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ABSTRACT

This report presents the results of a Phase IA cultural resources assessment and Phase IB Cultural Resources Reconnaissance survey for the proposed Salem Landing Development Project at 496 New London Road in Salem, Connecticut. CLA Engineers, Inc., requested that Heritage Consultants, LLC complete the Phase IA-IB survey in anticipation of the proposed residential development. The Phase IA investigation was completed in October of 2023 and involved a review of previously identified cultural resources recorded within the vicinity of the Project parcel, the collection and examination of aerial photographs and maps showing the parcel, a pedestrian survey of the parcel, and an assessment of the parcel for the potential to contain intact archaeological deposits. The results of the Phase IA survey suggested that three areas within the parcel retained high/moderate archaeological sensitivity. These areas were designated as Sensitivity Areas SA-1 through SA-3 and they encompassed 8.93 acres of land.

In addition, Phase IA pedestrian survey led to the identification of historical landscape features, including a disused carriageway/loop, an informal agricultural road, 12 dry-laid stonewalls, and a large grouping of stones. Further research indicates that these features may have been associated with the use of the land by former occupants of the Elijah Ransom House, which is located on the opposite side of New London Road. The Elijah Ransom House was built in ca., 1783 and served as a rest stop along the Hartford-New London Turnpike during the early-nineteenth century. The carriageway/loop may have been used to pick up and drop off visitors to the Elijah Ransom House on the opposite side of the street. After use of the house as a rest stop, the project parcel likely was converted to agricultural use, which is evidenced by the later building of a stonewall through the carriageway/loop. It is recommended that, to the extent possible these landscape features be avoided during the construction process.

During the Phase IB survey 131 of 150 (87 percent) planned shovel tests, as well as 11 of 12 (92 percent) radial shovel tests, were excavated throughout Sensitivity Areas SA-1 through SA-3. Of these, 14 yielded post-European Contact materials, two contained precontact era materials, and four produced both precontact era and post-European Contact period artifacts. The post-European Contact period artifacts recovered during the Phase IB subsurface testing of the project area date generally from the late-eighteenth through nineteenth centuries, which correlates with the time period that Elijah Ransom House was used as a rest stop along the Hartford-New London Turnpike. However, archaeologically significant components associated the Elijah Ransom House are likely located on the opposite side of the New London Turnpike from the project area and in association with the house itself. The post-European period artifacts recovered from the project area in Sensitivity Areas SA-1 through SA-3, which consist of a light scatters, 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 further subsurface testing of the areas that yielded post-European Contact period artifacts is recommended.

In addition, precontact era artifacts were also found in various places within Sensitivity Areas SA-1 through SA-3. They included quartz debitage, and were identified as Isolated Find 1 in Sensitivity Area SA-1, Locus 1 in Sensitivity Area SA-3, and Locus 2 in Sensitivity Area SA-2. Delineation of Isolated Find 1 failed to recover any additional precontact era artifacts and this location was assessed as not eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). No additional examination of Isolated Find 1 is recommended prior to construction. The precontact era archaeological deposits identified within Sensitivity Area SA-2 and Sensitivity Area SA-3, which include Locus 2 and Locus 1, respectively, also failed to yield substantial numbers of artifacts and/or research potential. They too were assessed as not eligible for listing on the National Register of Historic Places

applying the criteria for evaluation (36 CFR 60.4 [a-d]). No additional examination of them is recommended prior to construction.

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CHAPTER I

INTRODUCTION

Heritage Consultants, LLC (Heritage) conducted Phase IA assessment and Phase IB Reconnaissance surveys of the proposed Salem Landing Development Parcel at 496 New London Road in Salem, Connecticut (Figure 1). CLA Engineers, Inc., (CLA) requested that Heritage complete the Phase IA assessment and Phase IB reconnaissance surveys in anticipation of the proposed residential development (the Project). The proposed development will include the construction of 24 two-bedroom townhouses within six buildings, a single-family residence, associated infrastructure, and stormwater retention structures. These will be built on a parcel that encompasses approximately 54.81 acres of land (Figures 1 and 2). Heritage completed the fieldwork for this investigation in November of 2023. All work associated with this project was performed in accordance with the *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987), which is promulgated by the Connecticut State Historic Preservation Office (CT-SHPO).

Summary of Project Methods

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

The assessment survey portion of the project described above was followed by Phase IB reconnaissance survey efforts utilizing systematic shovel testing, GPS recordation, and photo-documentation throughout the archaeologically sensitive portions of the Project parcel. During the Phase IB survey, Heritage excavated shovel tests at 20 meter (m) (65.6 foot [ft]) intervals along transects spaced 15 m (49.2 ft) apart throughout the areas previously identified as retaining a high/moderate archaeological sensitivity. Each shovel test measured 50 x 50 centimeters (19.7 x 19.7 inches) in size and each was excavated to a depth of 1 meter (3.28 feet) below surface, until the glacially derived C-Horizon was encountered, or until immovable objects (e.g., tree roots, boulders, etc.) hindered further excavation. Each shovel test was excavated in 10 centimeters (3.9 inches) levels within natural soil horizons, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 centimeters (0.25 inches) hardware cloth and examined visually for cultural material. Soil characteristics were recorded using Munsell Soil Color Charts and standard soils nomenclature. Shovel tests were backfilled after being recorded.

Summary of Project Results

The results of the Phase IA assessment effort suggested that the Project parcel retained three areas with high/moderate archaeological sensitivity. These areas were designated as Sensitivity Area SA-1 through SA-3. They encompass 8.93 acres of land. Sensitivity Area SA-1 encompassed 4.22 acres of land located in the northwestern corner of the parcel. During the Phase IB survey, 59 of 72 (82 percent) planned shovel tests were excavated within Sensitivity Area SA-1, of which five (8 percent) yielded artifacts dating from the post-European Contact period and one (1 percent) produced precontact era cultural material. The post-European Contact period cultural material recovered from Sensitivity Area

SA-1 consisted of examples of ceramic sherds, glass shards, and nails, all of which were recovered from the Ap-Horizon (plowzone). In addition, a single quartz flake was recovered from a shovel test within Sensitivity Area SA-1. Despite excavation of 3 of 4 (75 percent) delineation test pits around the find spot, no other precontact era artifacts were recovered; this area was designated as ISO-1. The archaeological examination of Sensitivity Area SA-1 indicated that the recovered post-European Contact period artifacts represented unassociated field scatter and that the quartz flake was as isolated find. Both archaeological components identified within Sensitivity Area SA-1 lack substantial numbers of artifacts, associated cultural features, and/or research potential. They are not considered eligible for listing on the National Register of Historic Places applying the criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of Sensitivity Area SA-1 is recommended prior to development.

Sensitivity Area SA-2 encompassed 1.62 acres of land located along the western edge of the Project parcel. During the Phase IB survey, 24 of 26 (92 percent) planned shovel tests were excavated throughout this area, of which three (12 percent) yielded post-European Contact period artifact and two (8 percent) contained both precontact era and post-European Contact artifacts. This concentration of artifacts was designated as Locus 2. Locus 2 yielded 1 quartz flake and 1 calcined bone fragment in association with post-European Contact period artifacts from two consecutive test pits within Sensitivity Area SA-2. Delineation of the area containing both precontact era and post-European Contact period artifacts led to the recovery of two additional calcined bone fragments, which have the potential to date from the precontact era, as well as examples of ceramic sherds, glass shards, and nails dating from the post-European Contact period. All of the recovered artifacts with the exception of the single quartz flake were recovered from the disturbed plowzone and were not found in association with any cultural features. Since delineation failed to yield any other evidence of intact cultural deposits, both the precontact era and post-European Contact period components of Locus 2 appear to 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 archaeological examination of Locus 2 or Sensitivity Area SA-2 is recommended prior to development.

Finally, Sensitivity Area SA-3 encompassed 3.09 acres of land located along the southern border of the Project parcel. A total of 49 of 52 (94 percent) planned shovel tests were excavated throughout Sensitivity Area SA-3, of which two produced post-European Contact period artifacts and one contained both precontact era and post-European Contact period cultural material. The post-European Contact period artifact assemblage recovered from Locus 1 consisted of examples of whiteware sherds, glass shards, and metal fragments, all of which were recovered from plowzone and fill contexts. In addition, survey shovel testing of Sensitivity Area SA-3 resulted in the recovery of 1 quartz flake and 1 whiteware sherd from a single test pit; these artifacts also were recovered from the disturbed plowzone. Delineation of Locus 1 also yielded a second quartz flake and a glass shard from two test pits; these artifacts also were collected from the disturbed plowzone. Both the precontact era and post-European Contact period components of Locus 1 appear to 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 archaeological examination of Locus 1 or Sensitivity Area SA-3 is recommended prior to development.

In addition to the subsurface testing of the Project parcel, pedestrian survey of the project area resulted in the identification of several stonewalls, a historical carriageway/loop, and a large grouping of rocks. The stonewalls range in condition from toppled to intact and extend throughout the majority of the Project parcel. Their exact date of manufacture and cultural affiliation of the stonewalls could not be determined. The carriageway/loop likely dates from the eighteenth century and may have been used to drop off and pick up visitors to the Elijah Ransom House on the opposite side of the New London

Turnpike. Interestingly, one of the stonewalls on the project parcel crosses through the former carriageway/loop, indicating that the wall was built a later point in time, possibly during the nineteenth century. The large grouping of rocks was identified in the central portion of the project area during the pedestrian survey; its origin is unknown. It is recommended that, to the extent possible, these landscape features be avoided during the construction process.

Project Personnel

Key personnel for this investigation included David R. George, M.A., RPA, (Principal Investigator), Brenna Pisanelli, M.A., (Senior Project Archaeologist), Linda Seminario, M.A., (Project Archaeologist), Sam Spitzschuh, B.A., (Field Director), Nita Vitaliano, M.A. (Historian), and Tevin Jourdain, B.A., (Geographic Information Specialist).

CHAPTER II

NATURAL SETTING

Introduction

This chapter provides a brief overview of the natural setting of the region containing the Development parcel, in Salem, 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: Southeast Hills Ecoregion. A summary of this ecoregion is presented below. It is followed by a discussion of the hydrology and soils found in and adjacent to the Facility area.

Southeast Hills Ecoregion

The Southeast Hills ecoregion consists of “coastal uplands, lying within 25 miles of Long Island Sound, characterized by low, rolling to locally rugged hills of moderate elevation, broad areas of upland, and local areas of steep and rugged topography” (Dowhan and Craig 1976). Elevations in the Southeast Hills ecoregion generally range from 75.7 to 227.2 m (250 to 750 ft) above sea level (Dowhan and Craig 1976). The bedrock of the region is composed of schists, and gneisses deposited during the Paleozoic. Soils in the region have developed on top of glacial till in upland locales, and on top of stratified deposits of sand, gravel, and silt in the local valleys and upland areas (Dowhan and Craig 1976).

Hydrology of the Study Region

The development parcel is located within close proximity of several streams, ponds and wetlands. The major fresh water sources in this area include Horse Pound Brook, which runs through the project area, Oxoboxo Lake, Lake Konomoc, the Thames River to the east, the Connecticut River to the west, as well as Latimer Brook and Bogue Brook. Previously completed archaeological investigations in Connecticut have demonstrated that streams, rivers, and wetlands were focal points for precontact era occupations because

they provided access to transportation routes, sources of freshwater, and abundant faunal and floral resources. These water sources also provided the impetus for the construction of water powered mill facilities during the eighteenth and nineteenth centuries.

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 parcel. In contrast, acidic soils enhance the preservation of charred plant remains.

A review of the soils within the development parcel revealed eight soil types (Figure 3; Table 1). The western portion is dominated by Paxton and Montauk soils, and the eastern portion consists of Agawam and Canton- Charlton soils. The remainder of the area consists of Ridgebury, Leicester, and Whitman Series, Ninigret and Tisbury Soils, Rippowam series, and Woodbridge soils. There is only a small presence of Hinckley soils and Scarboro soils near the boundary. These soil types fall into two categories of well-to-excessively drained and poorly drained soil types. All the soils identified within the parcel, excluding Ridgebury, Leicester, and Whitman soils, are defined as excessively-to-moderately well drained. When well drained remain undisturbed and on less than eight percent slope, they are generally well correlated with precontact era and post-European Contact period site locations and are considered to have higher archaeological sensitivity. In contrast, poorly drained soils are not likely to contain archaeological deposits. Below is a summary of each specific soil type identified within the Project area.

Table 1. Soil types identified within the development parcel area.

Soil Code	Soils	Characteristics
29A, 29B	Agawam	very deep, well drained
62D	Canton and Charlton	very deep, well drained
21A	Ninigret and Tisbury	very deep, moderately well drained
3	Ridgebury, Leicester, Whitman	very deep, poorly drained
103	Rippowam	very deep, moderately well drained
26	Windsor	very deep, excessively well drained
84B, 85B	Paxton and Montauk	very deep, well drained
38C	Hinckley	very deep, excessively drained
15	Scarboro	very deep, very poorly drained
46C	Woodbridge	very deep, moderately well drained

Paxton and Montauk Soils (84B, 85B)

The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are found on nearly level to steep soils on hills, drumlins, till plains, and ground moraines. Slope associated with these soils range from 0 to 45 percent. A typical profile associated with Paxton soils is as follows: **Ap**--0 to 20 cm; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 5

percent gravel; strongly acid; abrupt smooth boundary; **Bw1**--20 to 38 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; few earthworm casts; strongly acid; gradual wavy boundary; **Bw2**--38 to 66 cm; olive brown (2.5Y 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; clear wavy boundary; and **Cd**--66 to 165 cm; olive (5Y 5/3) gravelly fine sandy loam; medium plate-like divisions; massive; very firm, brittle; 25 percent gravel; many dark coatings on plates; strongly acid.

The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines. Slopes associated with these soils ranges from 0 to 35 percent. A typical profile associated with Montauk soils is as follows: **Ap**--0 to 10 cm; very dark gray (10YR 3/1) loam; moderate fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 2 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.1); clear smooth boundary.; **BA**--10 to 34 cm; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 4 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary; **Bw1**--34 to 65 cm; dark yellowish brown (10YR 4/6) loam; moderate coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 6 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary; **Bw2**--65 to 87 cm; yellowish brown (10YR 5/6) sandy loam; moderate medium and coarse subangular blocky structure; friable; many very fine, fine, and coarse roots; many fine and medium pores; 5 percent gravel and 1 percent cobbles; extremely acid (pH 4.3); clear smooth boundary; **2Cd1**--87 to 101 cm; strong brown (7.5YR 5/6) gravelly loamy sand; moderate medium plates; firm; few fine roots; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; very strongly acid (pH 4.7); clear wavy boundary; and **2Cd2**--101 to 184 cm; dark yellowish brown (10YR 4/6) gravelly loamy sand; moderate medium plates; firm; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; strongly acid (pH 5.1).

Ridgebury, Leicester, and Whitman Series (3)

The Ridgebury series consists of very deep, somewhat poorly drained soils formed in lodgment till derived mainly from granite, gneiss and/or schist. They are commonly shallow to a densic contact. They are nearly level to gently sloping soils in depressions in uplands. They also occur in drainageways in uplands, in toeslope positions of hills, drumlins, and ground moraines, and in till plains. Slope ranges from 0 to 15 percent. A typical profile associated with Ridgebury soils is as follows: **A**--0 to 13 cm; black (N 2/0) fine sandy loam; weak medium and coarse granular structure; friable; many very fine, fine and medium tree roots; 5 percent gravel and 5 percent cobbles; very strongly acid; abrupt smooth boundary; **Bw**--13 to 23 cm; brown (10YR 4/3) sandy loam; weak medium subangular blocky structure; friable; few fine tree roots; 5 percent gravel and 5 percent cobbles; very strongly acid; abrupt wavy boundary; **Bg**--23 to 46 cm; dark gray (10YR 4/1) gravelly sandy loam; massive; friable; 10 percent gravel and 5 percent cobbles; common fine prominent yellowish brown (10YR 5/6) and common medium distinct reddish brown (5YR 4/4) masses of iron accumulation; very strongly acid; gradual wavy boundary; and **Cd**--46 to 165 cm; gray (5Y 5/1) gravelly sandy loam; massive; firm; 10 percent gravel and 5 percent cobbles; common fine prominent reddish yellow (7.5YR 6/8) masses of iron accumulation; very strongly acid.

The Leicester series consists of very deep, poorly drained soils formed in coarse-loamy till. They are nearly level or gently sloping soils in drainageways and low-lying positions on hills. Slope ranges from 0 to 8 percent. A typical profile associated with Leicester soils is as follows: **Oe**--0 to 3 cm; black (10YR 2/1)

moderately decomposed plant material. **A**--3 to 18 cm; black (10YR 2/1) fine sandy loam; moderate medium granular structure; friable; common fine and medium roots; 10 percent gravel and cobbles; strongly acid; clear wavy boundary; **Bg1**--18 to 25 cm; grayish brown (2.5Y 5/2) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 10 percent gravel and cobbles; common medium prominent yellowish red (5YR 5/6) masses of iron accumulation; strongly acid; gradual wavy boundary; **Bg2**--25 to 46 cm; light brownish gray (2.5Y 6/2) fine sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; 10 percent gravel and cobbles; common fine prominent yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid; gradual wavy boundary; **BC**--46 to 61 cm; pale brown (10YR 6/3) fine sandy loam; massive; friable; few fine roots; 10 percent gravel and cobbles; many medium distinct yellowish brown (10YR 5/6) and yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary; **C1**--61 to 84 cm; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; massive; friable; 15 percent gravel and cobbles; many medium distinct yellowish brown (10YR 5/6) masses of iron accumulation and prominent pinkish gray (7.5YR 6/2) iron depletions; strongly acid; gradual wavy boundary; and **C2**--84 to 155 cm; dark yellowish brown (10YR 4/4) gravelly fine sandy loam; massive; friable; 15 percent gravel and cobbles; few fine distinct yellowish brown (10YR 5/6) masses of iron accumulation; strongly acid.

The Whitman series consists of very deep, very poorly drained soils formed in lodgment till derived mainly from granite, gneiss, and schist. They are shallow to a densic contact. These soils are nearly level or gently sloping soils in depressions and drainageways on uplands. A typical profile associated with Whitman soils is as follows: **Ap**--0 to 25 cm; black (10YR 2/1) loam, dark gray (10YR 4/1) dry; weak medium granular structure; friable; 10 percent rock fragments; common medium distinct red (2.5YR 4/8) masses of iron accumulation lining pores; moderately acid; abrupt wavy boundary; **Bg**--25 to 46 cm; gray (5Y 5/1) fine sandy loam; massive; friable; 10 percent rock fragments, few medium distinct pale olive (5Y 6/4) and light olive brown (2.5Y 5/4) masses of iron accumulation; strongly acid; abrupt wavy boundary; **Cdg**--46 to 79 cm; gray (5Y 6/1) fine sandy loam; moderate medium plates; firm; 10 percent rock fragments; many medium distinct light olive brown (2.5Y 5/4) masses of iron accumulation; moderately acid; clear wavy boundary; **Cd1**--79 to 122 cm; olive (5Y 4/3) fine sandy loam; massive; firm; 10 percent rock fragments; few medium prominent dark reddish brown (2.5YR 3/4) masses of iron accumulation; moderately acid; gradual wavy boundary; and **Cd2**--122 to 165 cm; olive (5Y 5/3) fine sandy loam; massive; firm; 10 percent rock fragments; moderately acid.

Ninigret and Tisbury Soils (21A)

The Ninigret series consists of very deep, moderately well drained soils formed in loamy over sandy and gravelly glacial outwash. They are nearly level to strongly sloping soils on glaciofluvial landforms, typically in slight depressions and broad drainage ways. Slope ranges from 0 through 15 percent. A typical soil profile is as follows: **Ap**--0 to 8 inches; very dark grayish brown (10YR 3/2) fine sandy loam; pale brown (10YR 6/3) dry; weak medium granular structure; very friable; many fine roots; strongly acid; **Bw1**--8 to 16 inches; yellowish brown (10YR 5/6) fine sandy loam; weak coarse granular structure; very friable; few fine roots; strongly acid; **Bw2**--16 to 26 inches; yellowish brown (10YR 5/4) fine sandy loam; very weak coarse granular structure; very friable; very few fine roots; common medium distinct light brownish gray (10YR 6/2) and brownish yellow (10YR 6/6) redoximorphic features; strongly acid; **2C**--26 to 65 inches; pale brown (10YR 6/3) loamy sand and few lenses of loamy fine sand; single grain; loose; many medium distinct light olive gray (5Y 6/2) and many prominent yellowish brown (10YR 5/8) redoximorphic features; strongly acid.

The Tisbury series consists of very deep, moderately well drained loamy soils formed in silty eolian deposits overlying outwash. They are nearly level and gently sloping soils on outwash plains and

terraces, typically in slight depressions and broad drainageways. Slope ranges from 0 to 3 percent. A typical soil profile is as follows: **Ap**--0 to 8 inches; very dark grayish brown (10YR 3/2) silt loam; weak coarse granular structure; friable; many very fine and fine roots; few scattered pebbles; strongly acid; abrupt smooth boundary; **Bw1**--8 to 18 inches; yellowish brown (10YR 5/6) silt loam; weak medium and coarse subangular blocky structure; very friable; common very fine and fine roots; few scattered pebbles; strongly acid; clear wavy boundary; **Bw2**--18 to 26 inches; brownish yellow (10YR 6/6) silt loam; massive; very friable; few fine roots; few scattered pebbles; common medium prominent grayish brown (2.5Y 5/2) iron depletions and common medium distinct strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary; and **2C**--26 to 60 inches; grayish brown (10YR 5/2) extremely gravelly sand; single grain; loose; 60 percent gravel; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and common medium faint light brownish gray (10YR 6/2) iron depletions; strongly acid.

Rippowam Series (103)

The Rippowam series consists of very deep, poorly drained loamy soils formed in alluvial sediments. They are nearly level soils on flood plains subject to frequent flooding. A typical profile associated with Rippowam soils is as follows: **A**--0 to 5 inches; very dark grayish brown (10YR 3/2) fine sandy loam; weak medium granular structure; friable; common fine and medium roots; very strongly acid; clear wavy boundary; **Bg1**--5 to 12 inches; dark grayish brown (10YR 4/2) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; very strongly acid; clear wavy boundary; **Bg2**--12 to 19 inches; dark gray (10YR 4/1) fine sandy loam; weak medium subangular blocky structure; friable; few fine and medium roots; many medium prominent yellowish red (5YR 4/6) masses of iron accumulation; strongly acid; clear wavy boundary; **BCg1**--19 to 24 inches; grayish brown (10YR 5/2) sandy loam; massive; friable; few fine and medium roots; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation; strongly acid; clear wavy boundary; **BCg2**--24 to 27 inches; very dark gray (10YR 3/1) sandy loam; massive; friable; few fine and medium roots; moderately acid; clear wavy boundary; **Cg1**--27 to 31 inches; dark gray (10YR 4/1) loamy sand; single grain; loose; moderately acid; clear wavy boundary; and **Cg2**--31 to 65 inches; grayish brown (10YR 5/2) very gravelly sand; single grain; loose; 35 percent gravel; moderately acid.

Agawam Soils (29A, 29B)

The Agawam series consists of very deep, well drained soils formed in sandy, water deposited materials. They are level to steep soils on outwash plains and high stream terraces. Slope ranges from 0 to 15 percent. A typical profile associated with Agawam soils is as follows: **Ap**--0 to 11 inches; dark grayish brown (10YR 4/2) fine sandy loam; light brownish gray (10YR 6/2) dry; weak medium and coarse subangular blocky structure; very friable; common fine and medium roots; strongly acid; abrupt smooth boundary; **Bw1**--11 to 16 inches; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium and coarse subangular blocky structure; very friable; common fine and medium roots; strongly acid; abrupt smooth boundary; **Bw2**--16 to 26 inches; light olive brown (2.5Y 5/4) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; strongly acid; clear smooth boundary; **C1**--26 to 45 inches; olive (5Y 5/3) loamy fine sand; massive; very friable; few fine roots; strongly acid; clear smooth boundary; **2C2**--45 to 55 inches; olive brown (2.5Y 4/4) loamy fine sand; massive; very friable; strongly acid; abrupt smooth boundary; and **2C3**--55 to 65 inches; olive (5Y 5/3) loamy sand; single grain; loose; strongly acid.

Canton and Charlton Soils (62D)

The Canton series consists of very deep, well drained soils formed in a loamy mantle underlain by sandy till. They are found on nearly level to very steep moraines, hills, and ridges. Slope ranges from 0 to 45 percent. A typical profile associated with Canton soils is as follows: **Oi**--0 to 5 cm; slightly decomposed plant material; **A**--5 to 13 cm; very dark grayish brown (10YR 3/2) fine sandy loam; weak fine granular structure; friable; common fine roots; 5 percent gravel; very strongly acid (pH 4.6); abrupt smooth boundary; **Bw1**--13 to 30 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; very strongly acid (pH 4.6); clear smooth boundary; **Bw2**--30 to 41 cm; yellowish brown (10YR 5/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine and medium roots; 5 percent gravel; strongly acid (pH 5.1); clear smooth boundary; **Bw3**--41 to 56 cm; yellowish brown (10YR 5/4) gravelly fine sandy loam; weak medium subangular blocky; friable; common fine and medium roots; 15 percent gravel; strongly acid (pH 5.1); abrupt smooth boundary; and **2C**--56 to 170 cm; grayish brown (2.5Y 5/2) gravelly loamy sand; massive; friable; 25 percent gravel; moderately acid (pH 5.6).

The Charlton series consists of very deep, well drained soils formed in loamy melt-out till. They are nearly level to very steep soils on moraines, hills, and ridges. Slope ranges from 0 to 60 percent. A typical profile associated with Charlton soils is as follows: **Oe**--0 to 4 cm; black (10YR 2/1) moderately decomposed forest plant material; **A**--4 to 10 cm; dark brown (10YR 3/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; 5 percent gravel; very strongly acid; abrupt smooth boundary; **Bw1**--10 to 18 cm; brown (7.5YR 4/4) fine sandy loam; weak coarse granular structure; very friable; many fine and medium roots; 5 percent gravel; very strongly acid; clear wavy boundary; **Bw2**--18 to 48 cm; yellowish brown (10YR 5/6) fine sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; 10 percent gravel and cobbles; very strongly acid; clear wavy boundary; **Bw3**--48 to 69 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; massive; very friable; few medium roots; 15 percent gravel and cobbles; very strongly acid; abrupt wavy boundary; and **C**--69 to 165 cm; grayish brown (2.5Y 5/2) gravelly fine sandy loam with thin lenses of loamy sand; massive; friable, some lenses firm; few medium roots; 25 percent gravel and cobbles; strongly acid.

Hinckley Soils (38C)

Hinckley series consists of very deep, excessively drained soils formed in glaciofluvial materials. They are nearly level through very steep soils on outwash terraces, outwash plains, outwash deltas, kames, kame terraces, and eskers. Saturated hydraulic conductivity is high or very high. Slope ranges from 0 to 60 percent. A typical profile associated with Hinckley soils is as follows: **Oe** -- 0 to 3 cm; moderately decomposed plant material derived from red pine needles and twigs; **Ap** -- 3 to 20 cm; very dark grayish brown (10YR 3/2) loamy sand; weak fine and medium granular structure; very friable; many fine and medium roots; 5 percent fine gravel; very strongly acid; abrupt smooth boundary; **Bw1** -- 20 to 28 cm; strong brown (7.5YR 5/6) gravelly loamy sand; weak fine and medium granular structure; very friable; common fine and medium roots; 20 percent gravel; very strongly acid; clear smooth boundary; **Bw2** -- 28 to 41 cm; yellowish brown (10YR 5/4) gravelly loamy sand; weak fine and medium granular structure; very friable; common fine and medium roots; 25 percent gravel; very strongly acid; clear irregular boundary; **BC** -- 41 to 48 cm; yellowish brown (10YR 5/4) very gravelly sand; single grain; loose; common fine and medium roots; 40 percent gravel; strongly acid; clear smooth boundary; and **C** -- 48 to 165 cm; light olive brown (2.5Y 5/4) extremely gravelly sand consisting of stratified sand, gravel and cobbles; single grain; loose; common fine and medium roots in the upper 20 cm and very few below; 60 percent gravel and cobbles; moderately acid.

Scarboro Series (15)

The Scarboro series consists of very deep, very poorly drained soils in sandy glaciofluvial deposits on outwash plains, deltas, and terraces. They are nearly level soils in depressions. Slope ranges from 0 through 3 percent. Saturated hydraulic conductivity is high or very high. A typical soil profile is as follows: **Oi**-- 0 to 1 inch (0 to 3 centimeters); slightly decomposed maple leaves and other plant material; **Oa**-- 1 to 8 inches (3 to 20 centimeters); dark brown (10YR3/3) mucky peat; thin platy structure; friable; common fine roots; very strongly acid; abrupt wavy boundary; **A**-- 8 to 14 inches (20 to 36 centimeters); black (N 2/0) mucky fine sandy loam; weak medium granular structure; friable; common fine roots; very strongly acid; abrupt smooth boundary; **Cg1**-- 14 to 19 inches (36 to 48 centimeters); grayish brown (2.5Y 5/2) loamy sand; massive; friable; many fine roots; very strongly acid; abrupt irregular boundary; **Cg2**-- 19 to 22 inches (48 to 56 centimeters); grayish brown (2.5Y 5/2) sand; massive; friable; few fine roots; 10 percent rock fragments; common medium prominent dark brown (7.5YR 3/2) areas of iron depletion and common medium prominent yellowish red (5YR 4/6) masses of iron; very strongly acid; clear wavy boundary; and **Cg3**-- 22 to 65 inches (56 to 165 centimeters); grayish brown (2.5Y 5/2) gravelly sand; single grain; loose; 15 percent rock fragments; strongly acid. (https://soilseries.sc.egov.usda.gov/OSD_Docs/S/SCARBORO.html)

Woodbridge Soils (46C)

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

Summary

A review of mapping, geological data, ecological conditions, soils, slopes, and proximity to freshwater, suggests that portions of the Project parcel 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 soils located near freshwater sources. The types of precontact era 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 (Leslie 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 (Leslie 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 Salem Landing Development is located at 496 New London Road in the town of Salem, which is in New London County, Connecticut. Most Connecticut towns, including Salem, originated as Indigenous settlements, and later became English colonial villages. Originally known as “Paugwonk” Salem was incorporated in 1819 with land from Colchester, Lyme and Montville. Salem was a predominantly agricultural community and later housed the first music conservatory in the United States. Into the twenty-first century, Salem is considered a bedroom community with rural characteristics and a connection to other towns via Route 11. This chapter presents an overview of New London County, the town of Salem, and data specific to the project area.

New London County

New London County was one of the four original counties established in 1666 following the merger of Connecticut Colony and New Haven Colony. Located in the southeastern corner of Connecticut, New London County is bounded to the south by Long Island Sound, to the east by the State of Rhode Island, to the north by Windham County, Tolland, and Hartford Counties, and to the west by Middlesex and Tolland Counties. Its landscape includes rich farmland, significant freshwater rivers, and an extended shoreline on Long Island Sound. Important waterways associated with New London County include the Connecticut, Thames, Shetucket, Quinebaug, Yantic, Pawcatuck, Mystic, Poquonnock, and Niantic Rivers (Hurd 1882). The shoreline also has many smaller rivers, harbors, islands, and inlets. The county’s three largest cities are located on the Thames River; New London on the western shore near the mouth, Groton on the eastern shore near the mouth, and Norwich at the river’s head. Other important population centers are located at Mystic, Stonington Borough, Waterford, and Niantic (Connecticut 2021).

Woodland Period to the Seventeenth Century

During the Woodland Period of northeastern North American history (ca., 3,000 to 500 years ago), the Indigenous peoples who resided along the shoreline in central Connecticut were part of the greater Algonquian culture of northeastern North America (Lavin 2013). They spoke local variations of Southern New England Algonquian (SNEA) languages and lived 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. 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 habitation, known as a *weetu* or *wigwam*, was usually 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 their immediate neighbors and often maintained long-distance networks (Lavin 2013).

Seventeenth Century through Eighteenth Century

As Indigenous communities maintained oral tradition rather than a written record, most surviving information of the Indigenous people of present-day Connecticut was recorded by European observers (Lavin 2013). At the time of the arrival of Europeans, the Native people who resided in present-day Salem were Mohegan and Niantic (Spiess 1934; De Forest 1852). The earliest Europeans known to have sailed along Long Island Sound and up the Connecticut River were the Dutch in ca., 1614 (Love 1903). The Dutch developed trade relationships with local Native communities. By the early 1620s, Dutch traders entered into an agreement with the Pequot of present-day southeastern Connecticut in which the Pequot supplied wampum (polished shells) and furs in return for European goods. In 1624, the Dutch West India Company formally established New Netherland Colony centered around Manhattan and the Hudson River with its eastern bounds extending as far as Cape Cod, including much of present-day Connecticut (Jacobs 2009). Through their relationship with the Dutch, the Pequot accessed a variety of trade goods they distributed to tributaries and traded with other groups in the region. The Pequot extended their dominance over the region, bringing all the Native nations in the area into a tributary relationship under their leadership (Hauptman and Wherry 2009; McBride 2013).

In 1633, the Pequot allowed the Dutch to build a fortified trading post, the *Huys de Hoop*, on the Connecticut River at the site of present-day Hartford to further cement both parties' domination over the flow of wampum, fur, and trade goods. To break from the Pequot, several Connecticut River sachems invited the English to the valley who then settled Windsor (1633), Wethersfield (1634), and Hartford (1635), as well as Saybrook Colony (1635) at the mouth of the river (Trumbull 1886; Van Dusen 1961). Increased European interaction resulted in exposure to diseases and epidemics Indigenous people had never encountered and to which they had no natural immunity. Illnesses such as smallpox, measles, tuberculosis, and cholera devastated Native communities. In 1633, an epidemic spread from Plimoth Colony to Connecticut, impacting the Pequot and the people of the Connecticut River Valley in 1634 (Trumbull 1886). Tensions between Native and European groups in the region resulted in the death of several English traders in 1634 and 1636, which were blamed on the Pequot. In retaliation, English forces from Massachusetts Bay destroyed Pequot and Niantic villages on the Pequot (Thames) River in August of 1636, which began the Pequot War. The Pequot laid siege to Saybrook Fort at the mouth of the Connecticut River during the winter of 1636-1637 and attacked Wethersfield in April of 1637. The Connecticut Colony declared war on the Pequot and was joined by Native warriors from the Connecticut River and Mohegans 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. The Pequot were defeated in present-day Fairfield and the war soon came to an end (Cave 1996).

Afterwards, the English considered Pequot territory, including land in the Connecticut River Valley, to be conquered lands and they were claimed by Connecticut Colony (Trumbull 1886). In January of 1639, the "fundamental orders" were adopted which outlined the framework for Connecticut Colony, a self-governed colony separate from Massachusetts Bay or Plimoth (Trumbull 1886). In the aftermath of the Pequot War, the Sachem Uncas claimed much of northeastern Connecticut colony, the lands of former Pequot tributaries, as Mohegan lands through both right of conquest and hereditary claims (Larned 1874; Oberg 2006). During the upheaval of King Philip's War (1675-1676) the Mohegan, Pequot, and other Connecticut groups sided with Connecticut Colony (Oberg 2006). Afterwards, Connecticut Colony recognized the Mohegan Sachem Uncas's claims to lands in the eastern parts of the colony. When Uncas died around 1684 and his lands at Mohegan, present-day Montville, were secure and recognized by the English. They were divided between his two sons, Attawanhood and Owaneco.

Early colonial interest in present-day Salem is multifaceted, given that Salem is comprised of what were portions of Colchester, Lyme, and Montville. In 1664, Captain Sannup, a Niantic Sachem deeded eight square miles of land to Matthew Griswold Sr., in what is now the southwest portion of Salem. Then, in 1669, Chapeto, a kinsman of Sachem Uncas deeded eight square miles of what became known as the Paugwonk Lands to William Lord; however, the boundaries of the area remained contested until 1720. The consolidation of much of this land occurred in 1718-1729, when Colonel Samuel Browne became owner of approximately 6,500 uninhabited acres, which were later divided and passed on to his three sons (Salem 2019; Stark 2023). Browne was one of many absentee landowners in Salem who managed their holdings with the assistance of numerous agents and overseers, thus slowing the development of the town as these owners rarely visited their properties (Stark 2023). Meanwhile, in the northern portion of Salem, in what had been Colchester, Owaneco, one of Uncas's sons, conveyed 500 acres to Daniel Mason, the son of Major John Mason, in 1686. In 1699, Owaneco gave an additional tract of land to Nathaniel Foote of Wethersfield and Samuel Rogers. These grants ushered in early settlement in the region. In 1725, the parish of Salem, often called Paugwonk, was created out of the southern part of Colchester and the northern part of Lyme in order to facilitate ecclesiastical privileges (Marshall 1922). At this time, the economy of the Salem was primarily agricultural and wheat was a major cash crop that was frequently exported to Boston (Salem 2019).

Salem received its name in honor of the above-referenced Colonel Samuel Browne of Salem, Massachusetts, who was a slaveowner and the largest landowner in what is now Salem, Connecticut. His sprawling plantation was left to his son William who had "a large population of enslaved people" who worked the land after 1759 (Salem 2022:43; Stark 2023). This land, which is located to the northwest of the project area, was later confiscated by the Connecticut General Assembly during the Revolutionary War (1775-1783), as the Browne family were noted Loyalists. Timber from this property was used to construct the 32-gun frigate *Confederacy* (Salem 2019; Stark 2023). Throughout the war, 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. A rationing system set up by individual towns, including what is currently Salem, to meet wartime needs. In 1784, the State passed a gradual manumission law, but slavery was not fully abolished until 1848 (Normen 2013). Following the war, on January 9, 1788, Connecticut ratified the U.S. Constitution to become the fifth state (Van Dusen 1961).

Nineteenth Century through the Twenty-First Century

In 1819, the town of Salem was established. At this time, Salem had a strong economy rooted in agriculture with gristmills, sawmills, and blacksmith shops as well as numerous taverns, including the Dolbeare Tavern, which hosted President Andrew Jackson (Salem 2019). Prior to the Civil War, Salem had become known as a musical center, in addition to its agricultural achievements. In 1833, the Whittlesey Piano Factory was established in Salem; it produced not only pianos, but other hand finished instruments. Just two years later, the Music Vale Seminar was launched in town as a women's music seminary and boarding school. It educated women from as far away as Canada and the West Indies for over 40 years (Salem 2022). This school is often considered the first music conservatory in the United States. The school was negatively impacted by the outbreak of the Civil War (1861-1865). Many Connecticut towns also directly provided men during the Civil War, including Salem. From the town, 65 men served in the Union Army (Hines 2002). The disruptions caused by the war led to the closure of the school in the late 1870s.

In the early twentieth century, Salem was the site of one of the earliest rural electrification programs. Frederick C. Rewolle, Jr., an engineer from New York, established Fairy Lake Farm which consists of 2,800 acres that utilized hydroelectric power in its farming techniques (Salem 2019). Because the farm was too

remote to connect with the transmission lines in New London, Rewolle, Jr. completed a full hydroelectric system on his property in 1922, the first of its kind in America. As of 1932, the principal industry in Salem was still agriculture however (Connecticut 1932).

Unfortunately, the flood of the Connecticut River in 1936 and the subsequent Hurricane of 1938 inflicted heavy damage upon New London County, and many properties in Salem were negatively affected and some were destroyed completely. Following these storms, Salem resident Himar Bingham IV played an important role during World War II. With a long family history rooted in Connecticut, Bingham IV served as vice consul at Marseilles, France beginning in 1940. With France run by the Vichy Regime at this time, Bingham IV used his power as vice consul to issue visas to Jewish refugees and fugitives trying to escape Europe via the port city of Marseilles. Even though his actions stood in direct opposition to US policy at the time Bingham even sheltered refugees in his home in France. It is estimated that he saved the lives of perhaps 2,000 people or more before retiring in 1945 and later returning to Salem (Connecticut 2023e).

After World War II, the mid-twentieth century brought with it the trend of suburban living and automobile culture to the United States. This included the movement of more permanent residents to industrial towns and cities, further boosting the regional population, as well as the local population of Salem. Initially mapped out in 1953, Route 11, which passes through Salem, was meant to serve as a connection between Hartford and New London. Construction began in 1963 and the road was opened in 1972, serving to connect Hartford to Salem, but never reaching New London (Romansky 2018). Despite its incomplete status, Route 11 still served to facilitate the growth and development of Salem in the post war era.

Changes continued in the region through the twenty-first century, with a trend towards greater population growth. As of 2021, Salem’s largest employers were Concrete Express Inc. and Burnett’s Landscaping. The population by 2021 was 4,186 residents (AdvanceCT and CTData Collaborative 2023). Principal industries included educational services and healthcare and social assistance. Strategic limited growth is anticipated in Salem. According to the Town’s Plan of Conservation and Development, the town plans to protect “the rural character and agricultural appearance of Salem” while “assuring availability of house” that is “suitable for all income levels” (Salem 2022:2).

Table 2: Population of Salem, Connecticut 1790-2020 (Connecticut 2023a-d; Connecticut 2021)

Town	1790	1800	1810	1820	1830	1840	1850	1860	1870	1880	1890	1900
Salem, New London County	1,053	955	811	764	830	717	574	481	468
	1910	1920	1930	1940	1950	1960	1970	1980	1990	2000	2010	2020
	443	424	403	504	618	925	1,453	2,335	3,310	3,858	4,151	4,083

History of the Project Area

The proposed Salem Landing Development is located at 496 New London Road in the Town of Salem, which is in New London County, Connecticut. The project parcel is situated across from what is currently known as the Olde Ransom Farm. This property was once owned by Lt. Elijah Ransom, who received these lands after the above-referenced Samuel Browne left his plantation during the Revolutionary War due to his loyalist leaning. Elijah Ransom was a native of Colchester, Connecticut and was born in 1751 (White 2002). Like Browne, Ransom also enslaved people to work on his farm (Brown and Rose 1980). He bought a portion of Browne’s estate in present-day Salem on March 26, 1783. The parcel included 343.5 acres, which he bought for the price of 1,035 pounds (Stark 2023). Ransom was granted the opportunity to buy this land from the state for his service in the Revolutionary War.

Lt. Elijah Ransom responded to the Lexington Alarm in 1775 and served for 22 days there before being commissioned on January 1, 1777 (Johnson 1889; Johnson 1901). He was listed as the fifth 2nd Lt. in the First Battalion State Regiment in July of 1778. By January of 1780, Ransom had risen to become the 1st Lt. of the Third Regiment of Connecticut. (*Revolutionary War Rolls, 1775-1783* n.d.). While Ransom purchased the subject property in 1783, it appears he leased out 340 acres of the property and a house to Jesse Fox for seven years beginning in April 1793 (Perkins 1905). Beginning in 1800, the Hartford New London Turnpike was established, also known as the Governor's Highway, along what is currently Route 85 through Salem. As such, this became a major thoroughfare for the region, and by 1820 stage-coaching was its own subculture in America, thus suggesting this land was part of an important part of early infrastructure in Connecticut (DeLuca 2011). Elijah Ransom died on January 22, 1828. Upon his death, he left to his daughter, Louisa, "land lying in Salem on the west side of the Hartford and New London Road, to be appraised and set off to her for that purpose" (Connecticut Probate Court n.d.) Louisa subsequently married Roger Southworth of Mansfield and they relocated to the property once owned by her father. It is unclear who owned the property after Louisa.

Walling's county map from 1854 shows that the proposed development parcel is located in the southeastern portion of Salem, and near the border with Montville (Figure 4). Horsepond Brook bisects the project area from north to south. To the north of the parcel was a school and the property of C. Richards, possibly Charles Richards, a machinist (USCB 1860a). The property owner located closest to the project area was J. Raymond, possibly Josiah Raymond. He was listed in the census as a farmer and he resided directly across the street and to the west of the proposed development, likely in the home that once belonged to Elijah Ransom and then his daughter. (USCB 1860b). The property of S.W. Loomis was to the south of the parcel at this time. Similarly, in Beers' map from 1868, the property of S.W. Loomis was still to the south of the project area and the property of J. Raymond was still to the west, with the school to the north. By 1868, the property of Charles Richards belonged to J.R. Moore. No property owners were labelled within the project area on the 1868 map (Figure 5).

During the twentieth and early twenty-first centuries, aerial photography shows that the proposed development area was characterized primarily by a wooded landscape with some intermixed agricultural fields. In 1934, the first year in which aerial photographs are available for this part of Connecticut, the project parcel appeared largely wooded, with an area of agricultural fields in the western portion and near the border with New London Road (Figure 6). There were additional fields to the north, west, and south of the parcel, whereas the area to the east was mostly forested and contained freshwater streams. There is no evidence of structures shown within the project parcel as of 1934. By 1990, there were significant changes to the landscape within the project area, as well as in the immediate vicinity. To the south and west of the project parcel several single family homes in residential neighborhoods had been constructed, along with the necessary infrastructure to support these neighborhoods (Figure 7). This included the establishment of detention ponds to the south of the project area. As of 1990, the project parcel was almost entirely wooded and there were no structures evident within it. To the east of the proposed development road improvements were in progress as of this time. Into the twenty-first century the trend towards residential development continued on the land near the project parcel. Aerial imagery from 2004 shows the construction of additional single family homes to the west and south of the project parcel, as well as further development of roads to the east of the parcel (Figure 8). Few changes were made to the landscape by 2019. The parcel remained wooded today (Figure 9).

Conclusions

The documentary review indicates that the area of the proposed Salem Landing Development Project has a relatively long history of use and has the potential to be associated with cultural resources. In the

portion that was agricultural fields, there is the possibility of encountering evidence of post-European Contact period farming activities that may be associated rural historic landscape use (e.g., stonewalls, outbuilding foundations, etc.).

CHAPTER V

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archaeological research completed within the vicinity of the project area in Salem, Connecticut. This discussion provides the comparative data necessary for assessing the results of the Phase IA and Phase IB survey, and it ensures that the potential impacts to all previously recorded cultural resources located within and adjacent to the development area is taken into consideration. Specifically, this chapter reviews previously identified archaeological sites, National/State Register of Historic Places properties, and inventoried standing structures over 50 years old situated in the Project region. 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. 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 (CT-SHPO), as well as the electronic site files maintained by Heritage, resulted in the identification of seven precontact era archaeological sites and five post-European contact period sites situated within 1.6 kilometers (1 miles) of the Project area (Figure 10). No National or State Register of Historic Places Area were identified within 1.6 kilometers (1 miles) of the Project area (Figure 11). A brief discussion of the archaeological resources is provided below.

Site 121-4

Site 121-4, which is also known as the Transect 33 site, is a precontact era site located on public land and is described as a site of indeterminate type with components dating from the Late and Terminal Archaic periods. It is located approximately 244 m (800 ft) to the east of Latimer Brook in Salem, Connecticut (Figure 10). The site was initially identified by Public Archaeology Survey Team, Inc., (PAST) during a Phase IB shovel in 1998. The precontact era materials recovered during the shovel testing effort included a single quartz and quartzite small stem projectile point and four quartz flakes. Additional delineation of the site by Archaeological and Historical Services, Inc., (AHS) did not yield further cultural material. The Connecticut Historic Resources Inventory suggests that the majority of the site was not located within the testing area and could potentially be eligible for the National Register of Historic Places based on the criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.7 kilometers (0.43 miles) to the southwest of the project area. No impact to the site will occur as a result of the proposed project.

Site 121-13

Site 121-13, which is also known as the Transect 26 site, is a precontact era site located 550 meters north of Salem Turnpike on public land in Salem, Connecticut (Figure 10). The site's characterization and temporal affiliation are currently unknown. A phase I survey conducted by PAST in 1998 resulted in the recovery of a quartzite flake and an indeterminate amount of potential quartz flakes. Site 121-13 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.9 kilometers (0.56 miles) to the west of the project area. No impact to the site will occur as a result of the proposed project.

Site 121-18

Site 121-18, is a precontact era site located on the western side of Route 85 in Salem, Connecticut and is described as of indeterminate use or type; it also lacks temporal designation (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 1998. The precontact era materials recovered from the site included four pieces of quartz debitage. Site 121-18 has not been assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). Site 121-18 is located approximately 1.6 kilometers (1 mile) to the northwest of the project area. No impact to the site will occur as a result of the proposed project.

Site 121-19

Site 121-19, is a precontact era site located on the western side of Route 85 in Salem, Connecticut and is described as a site of indeterminate use or type; it also lacks temporal designation (Figure 10). The site was initially identified by PAST during a Phase IB testing survey in 1998. The precontact era materials recovered from the site consisted of two pieces of quartz debitage. Site 121-19 has not been assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). Site 121-19 is located approximately 346 meters (0.21 mile) to the northwest of the project area. No impact to the site will occur as a result of the proposed project.

Site 121-24

Site 121-24 is a precontact era site described as having an indeterminate site use or type, as well as a lack of temporal designation; it is located approximately 0.6 km (0.37 mi) to the north of the Salem Turnpike in Salem, Connecticut (Figure 10). The site was initially identified by AHS during a Phase IB testing survey in 2002. The precontact era artifacts recovered from the site consisted of three quartz flakes. Phase II testing was conducted by AHS in the same years and led to the recovery of a single quartz flake. Due to the lack of diagnostic artifacts and low density of artifacts recovered, the site was assessed as ineligible for the National Register of Historic Places applying the criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.9 kilometers (0.6 miles) to the west of the project area. No impact to Site 121-24 will occur as a result of the proposed project.

Site 121-25

Site 121-125 is a precontact era occupation described as having an indeterminate site use or type, as well as a lack of temporal designation; it is located approximately 550 m (0.34 mi) north of Salem Turnpike in Salem, Connecticut (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 2002. The site was further investigated with a Phase II survey by AHS several months later. Precontact material recovered from the site consists of 10 quartz flakes, 2 quartzite and chert flakes, and a single quartz biface. Due to a lack of features or diagnostic materials, the site was designated as ineligible for the National Register of Historic Places. The site is located approximately 0.9 kilometers (0.6 miles) to the west of the project area. No impact to Site 121-125 will occur as a result of the proposed project.

Site 86-20

Site 86-20 is a precontact era site described as having an indeterminate site use or type as well as a lack of temporal designation; it is located approximately 100 m (328.1 ft) north of Route 161 in Montville, Connecticut (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 1998. The site was further investigated with a Phase II survey by AHS in 2022. Precontact era artifacts recovered from the site consist of 12 quartz flakes, a single quartz biface, and a single piece of charcoal. Due to the lack of diagnostics and cultural features recovered during the investigations, the site was determined to be ineligible for the National Register of Historic Places applying the criteria for evaluation

(36 CR 60.4 [a-d]). The site is located approximately 0.7 kilometers (0.4 miles) to the south of the project area. No impact to Site 86-20 will occur as a result of the proposed project.

Site 86-23

Site 86-23 is a precontact era site described as having an indeterminate site use or type as well as a lack of temporal designation; it is located approximately 304.8 m (1000 ft) to the west of Latimer Brook in Montville, Connecticut (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 1998. Precontact era cultural materials recovered from the site include nine quartz flakes, two chert flakes, and a single basalt biface. Site 86-23 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.9 kilometers (0.6 miles) to the south of the project area. No impact to Site 86-23 will occur as a result of the proposed project.

Site 86-25

Site 86-25 is a post-European Contact period site described as a stacked stone foundation with an unknown temporal affiliation; it is located on the western side of Route 85 in Montville, Connecticut (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 1998. Post-European Contact period materials recovered from the site consist of unspecified amounts of ceramic sherds, shell fragments, glass, nails, metal, and kaolin pipes. The significance of this site was listed as unknown without further testing. Site 86-25 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.9 kilometers (0.4 miles) to the south of the project area. No impact to Site 86-25 will occur as a result of the proposed project.

Site 86-26

Site 86-26 is a post-European Contact period site described as stone foundation with an unknown temporal affiliation; it is located on the western side of Route 85 in Montville, Connecticut (Figure 10). The site was initially identified by PAST during a Phase IB shovel testing survey in 1998. Post-European Contact period materials recovered from the site consist of a single nail, glass shards, and whiteware ceramic sherds. In addition, the subsurface testing yielded a quartz flake within disturbed soils. And was determined to be unaffiliated with the location. The significance of this site is unknown without further testing. Site 86-26 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.7 kilometers (0.6 miles) to the south of the project area. No impact to Site 86-26 will occur as a result of the proposed project.

Site 86-27

Site 86-27, also known as the Nicholas Bishop House, is a post-European Contact period site and is described as an agrarian site with components dating from the nineteenth through twentieth centuries. The site is located at the southwest corner of the intersection of Route 85 and Salem Turnpike in Montville, Connecticut (Figure 10). This residential site is estimated to have been occupied since 1830. The site was subjected to Phase I testing by PAST in 1998. Data recovered at this site includes nails, bones, glass, ceramics, metal. Site 86-27 was not assessed for the National Register of Historic Places applying the criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 0.8 kilometers (0.5 miles) to the south of the project area. No impact to Site 86-27 will occur as a result of the proposed project.

Site 86-28

Site 86-28 is a post-European Contact Period site described as an artifact concentration dating from the nineteenth-century; it is located on the western side of Route 85 in Montville, Connecticut (Figure 10). The site was subjected to phase I testing by PAST, Inc. in 1998. Data recovered at this site indicates a

nineteenth century presence and includes glass, kaolin, stoneware, creamware, pearlware. These artifacts could be associated with the historic home across the street. Site 86-28 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CR 60.4 [a-d]). The site is located approximately 1.4 kilometers (0.9 miles) to the south of the project area. No impact to Site 86-28 will occur as a result of the proposed project.

Summary

While the review of materials on files with the CT-SHPO revealed that there are not previously recorded National or State Register of Historic Places properties near the project area, it did result in the identification of numerous archaeological sites in the general regions. These consisted of precontact era Native American occupations of various types and dates, as well as post-European Contact period artifacts scatters and domestic sites. These sites document the long history of land use of region by both Native American and later historical populations. Their presence in the area also suggests that the project parcel may contain similar types of archaeological deposits.

CHAPTER VI

METHODS

Introduction

This chapter describes the research design and field methods used to complete the combined Phase IA and Phase IB survey of the residential development project in Salem, 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 cultural resources investigations were designed to identify all precontact era and post-European Contact period cultural resources located within the Project parcel. Fieldwork for the Project was comprehensive in nature and project planning utilized the information gathered during the background research portion of the undertaking. The methods used to complete this investigation were designed to provide complete and thorough coverage of all portions of the Project area. This undertaking entailed pedestrian survey, systematic subsurface testing, detailed mapping, and photo-documentation at both bridge replacement locations.

Field Methods

The following sections present overview discussions of the methods used to complete the Phase IA Cultural Resources Assessment Survey and the subsequent Phase IB Cultural Resources Reconnaissance Survey of the project parcel.

Phase IA Survey Methods

The following tasks were completed during the Phase IA investigation: 1) study of the region's precontact era, post-European Contact period, and natural settings; 2) a literature search to identify and discuss previously recorded cultural resources in Project region; 3) a review of maps, topographic quadrangles, and aerial imagery depicting the Project area in order to identify potential post European Contact resources and/or areas of past disturbance within and immediately adjacent to the Project area; and 4) pedestrian survey and photo-documentation of the work area in order to determine its archaeological sensitivity. These methods are in keeping with those required by the Connecticut State Historic Preservation Office in the document entitled: *Environmental Review Primer for Connecticut's Archaeological Resources* (Poirier 1987).

Heritage personnel also conducted a pedestrian survey of the Project area as part of the Phase IA cultural resources reconnaissance survey in November of 2023. During this effort, the Project area was photo-documented and assessed with respect to its potential to yield evidence of intact archaeological deposits. Completion of the Phase IA cultural resources assessment survey, which included the review of maps, aerial images, and pedestrian survey, indicated that portions of the Project area were characterized mostly by gently sloping to flat topography and that they may have retained a high/moderate potential to yield intact cultural deposits. As a result, Heritage completed a Phase IB cultural reconnaissance survey of areas designated as retaining high/moderate archaeological sensitivity. The Phase IB survey methods, results, and recommendations are discussed below.

Phase IB Survey Methods

Following the completion of the Phase IA cultural resources assessment survey, Heritage personnel subjected the high/moderate sensitivity areas to a Phase IB cultural resources reconnaissance survey.

The Phase IB survey was completed utilizing a program of systematic shovel testing, mapping of all landscape and above-ground cultural features, and photo-documentation of the Project parcel and their immediate settings. To achieve this, shovel tests were planned within Sensitivity Areas SA-1 through SA-3. The shovel test pits were placed approximately 20 m (65.6 ft) intervals along transects spaced 15 m (49.2 ft) apart throughout the areas previously identified as retaining a high/moderate archaeological sensitivity.

During survey, each square shovel test measured 50 x 50 cm (19.7 x 19.7 in) in size, and each extended to a depth of 1 meter (3.28 feet) below surface or were terminated when glacially-derived soils were noted or when immovable objects (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 cm (0.25 in) hardware cloth and examined visually for cultural material. Soil characteristics were recorded using Munsell Soil Color Charts and standard soils nomenclature. Each shovel test was backfilled immediately after it was recorded.

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 IA Cultural Resources Assessment and Phase IB Cultural Resources Reconnaissance Survey of the residential development located at 496 New London Road in Salem, Connecticut. The goals of the investigation included completion of the following tasks: 1) a contextual overview of the region's precontact era, post-European Contact period, and natural settings (e.g., soils, ecology, hydrology, etc.); 2) a literature search to identify and discuss previously recorded cultural resources in the region encompassing the Project parcel; 3) a review of readily available maps and aerial imagery depicting the project parcel in order to identify potential post-European Contact resources and/or areas of past disturbance within and immediately adjacent to the Project parcel; 4) pedestrian survey and photo-documentation of the Project parcel to determine their archaeological sensitivity; and 5) subsurface examination of Project parcel for evidence of intact cultural deposits.

Results of Phase IA Cultural Resources Assessment

The Phase IA cultural resources assessment survey of the Project parcel on the eastern side of New London Road included desktop research and pedestrian survey in order to assess the likelihood that it retained the potential to contain archaeological deposits. During the Phase IA effort, aerial images and maps were examined, as were the cultural resource files maintained at CT-SHPO. The examination of the maps and aerial images indicated that the Project parcel was largely agricultural in nature throughout the post-European Contact period and that several stonewalls remained intact on the property throughout the twentieth century. In addition, the desktop survey indicated that the area surrounding the parcel was characterized as rural with widespread residences and wooded land surrounding the parcel in all directions. The review of the CT-SHPO files resulted in the detection of seven precontact era and five post-European Contact period archaeological sites within 1.6 km (1 mi) of the Project area, though none of these were within the proposed Project area.

The subsequent pedestrian survey portion of the phase IA survey revealed that the Project parcel contains level to gently sloping topography and a mixture of both well and poorly drained soils, the latter of which are concentrated around the streams that cross the project area. At the time of survey, vegetation within the parcel consisted of brush and deciduous wooded land. The results of the Phase IA assessment effort suggested that the Project parcel retained three areas with high/moderate archaeological sensitivity. These areas were designated as Sensitivity Area SA-1 through SA-3; they encompass 8.93 acres of land (Figure 12). In addition, several extant features were identified, including a single carriageway/loop, a field road, a large grouping of stones, and 12 dry-laid stonewalls (Figure 13).

It is likely that the former carriageway/loop is associated with the Elijah Ransom House, which is located on the opposite side of New London Road. The Elijah Ransom house was built ca., 1783 and served as a rest stop on the Hartford-New London turnpike during the early-nineteenth century. The carriageway/loop is located in the western portion of the Project parcel. It extends from New London Road on a general northeast-southwest axis (Figure 13). It measures approximately 175 m (574.1 ft) in length and is flanked by two extant stonewalls on its northwestern and southeastern sides. The carriageway/loop intersected by what appears to have been a latter road that was likely used as an informal passage through agricultural fields. This road extends approximately 325 m (1,066.3 ft) along a

northwest-southeast axis between Woodchuck Road and the southern boundary of the Project parcel. This road is flanked by two dry-laid stonewalls that were designated as Stonewall 1 and Stonewall 2.. Stonewall 1 is the easternmost wall and consists of two segments. Segment 1 extends 190 m (623.4 ft) and Segment 2 measures 55 m (180.4 ft), both of them extend along the same axis as the road. Stonewall 2 measures 250 m (820.2 ft) in length and is located approximately 15 m (49.1 ft) to the southwest of Stonewall 1, Segment 1. It measures three courses in height and two courses in width, with minimal toppling throughout (Photo 1). These stonewalls and the road bisect the carriage loop and were thus likely built after the carriage loop went into disuse.

The remainder of the stonewalls identified within the Project area are dry laid and likely associated with later division of the land for agricultural use after the carriageway/loop was abandoned (Figure 13). Stonewall 3 lines the western portion of the Project parcel's boundaries and is separated into five segments. Segment 1 is located along the northern boundary of the parcel and extends 75 m (246.1 ft) on an east-west axis. Segment 2 is located on the northwestern border of the parcel and extends from the northwestern corner of the parcel to the northernmost end of Stonewall 2. The segment measures approximately 75 meters on a northeast-southwest axis. Segment 3 extends the entirety of the southwestern boundary of the parcel, running parallel to New London Road. This wall segment measures approximately 275 m (902.2 ft) in length. Segments 4 and 5 are located on the southernmost boundary of the parcel and extend in a northeast-southwest direction. Segment 4 measures approximately .33 km (0.21 mi) with its westernmost end intersecting with the southern end of Segment 3. These segments are separated by a 140 m (459.3 ft) gap. Segment 5 is located after the aforementioned gap and extends 40 m (131.2 ft) along the property line. It is likely that these walls connected at one point and that these gaps are majority caused by toppling, however, some of them might represent entrances into the property that have widened over time.

Stonewalls 4 and 5 both flank the carriage loop and extend from New London Road to Stonewall 2 on a northeast-southwest axis. Both walls extend approximately 125 m (410.1 ft) and are fairly intact, with Stonewall 5 measuring approximately 4 courses in height (Photo 2). Stonewall 4 is located approximately 25 m (82 ft) to the northwest of Stonewall 5, with the walls extending parallel to one another throughout their entirety. Though these walls run parallel to the carriage road, it is likely that they were built after the construction of the farm road and their corresponding stonewalls to the northeast to take advantage of the existing walls to construct field divisions throughout the property.

Stonewall 6 is located within the field division situated in the southwestern corner of the Project parcel and consists of two intersecting segments. Segment 1 runs on a northwest-southeast axis and measures approximately 23 m (75.5 ft) in length. The northern end of the segment intersects with Stonewall 5. It is seven courses high and in excellent condition (Photo 2). Segment 2 is 16 m (52.5 ft) long and lies on a northeast-southwest axis with its western end intersecting with Stonewall 3, Segment 3. The segment is 6 courses high and also in excellent condition (Photo 3). These walls create a small paddock within the northwestern corner of the field division.

Stonewalls 7 and 8 also likely represent the remnants of larger agricultural field divisions. Stonewall 7 is located along the northern border of the parcel and consists of two segments. Segment 1 intersects with Stonewall 3, Segment 1 and extends in a northwest-southeast direction for approximately 58 m (190.3 ft). Segment 2 intersects with the southern end of Segment 1 and extends 7 m (23.0 ft) to its southwest. In contrast, Stonewall 8 is located along the southernmost border of the parcel and consists of three segments. Segment 1 intersects with the northern tip of Stonewall 1, Segment 2 and runs approximately 130 m (426.5 ft) to the northeast. Segment 2 begins at the eastern tip of Segment 1 and extends

approximately 66 m (216.5 ft) to the southeast. Segment 3 extends off the southernmost end of Segment 2 in a southwesterly direction. It measures approximately 10 m (32.8 ft) in length and between 1 and 2 courses in width (Photo 4).

The remaining stonewalls are located in the eastern portion of the parcel. Stonewall 9 extends along a northwest-southeast axis approximately 0.3 km (0.19 mi) to the east of Horse Pound Brook (Figure 13). It extends approximately 122 m (400.2 ft) in length from the parcel's northern boundary in a southeasterly direction. The former dry-laid stonewall has been toppled and is not in good condition (Photo 5). Stonewall 10 runs parallel to Stonewall 9 approximately 175 m (574.1 ft) further east. Stonewall 10 measures approximately 150 m (492.1 ft) in length and two courses in height. Although portions of Stonewall 10 remain intact, several sections show evidence of toppling (Photos 6 and 7). Stonewall 11 runs perpendicular between Stonewalls 9 and 10. Although it is likely that the stonewall extended fully between Stonewalls 9 and 10 in the past, at the time of survey a single fragment extending from Stonewall 10 in a southwesterly direction was identified. This section measured 72 m (236.2 ft) in length. This stonewall was fairly intact with minimal evidence of toppling (Photo 8). Finally, Stonewall 12 was located on the eastern border of the Project parcel and was situated on a northeast-southwest axis. The stonewall extends approximately 25 m (82 ft) from the eastern boundary of the parcel to the southwest. This stonewall displayed evidence of toppling and damage caused by fallen trees (Photo 9).

In addition to the stonewalls and carriageway/loop, Heritage personnel identified a large cluster of stones located along a branch of Horse Pound Brook in the central portion of the parcel (Figure 13). This cluster measured approximately 6 meters (19.7 ft) in diameter (Photo 10). Its use, date, and cultural affiliation are unknown. It is recommended that these the carriageway/loop, stonewalls, and cluster of stone be avoided during construction of the residential development to the extent possible.

Results of Phase IB Cultural Resources Reconnaissance Survey

As stated earlier, the proposed Project parcel encompasses 54.81 acres of land located to the east of New London Road and to the south of Woodchuck Road (Figure 1). The area is bounded by widely spread rural residences and wooded land in all directions, with wetlands to the east and south of the parcel. During Phase IB survey, previously identified Sensitivity Areas SA-1 through SA-3 were subjected to subsurface testing. Of the 150 planned test shovel tests, 132 (88 percent) were excavated throughout all the areas retaining high/moderate archaeological sensitivity. The 18 unexcavated test pits fell on steep slopes or within areas of obvious disturbance. The results of subsurface examination of Sensitivity Areas SA-1 through SA-3 are discussed below.

Sensitivity Area SA-1

Sensitivity Area SA-1 encompasses 4.22 acres of land and is situated in the northwestern corner of the parcel (Figures 13 and 14). It is characterized by gently south sloping topography consisting of deciduous wooded areas and brush (Photos 11 and 12). During the Phase IB survey, 59 of 72 (82 percent) planned test pits, as well as three of four (75 percent) planned radial shovel tests, were excavated along or adjacent to eight survey transects within Sensitivity Area SA-1 (see Table 3). The 14 unexcavated test pits fell within areas of existing disturbances, including a modern road, wetlands, and larger areas of deadfall. The subsurface testing effort of Sensitivity Area SA-1 resulted in the recovery of post-European Contact period material from five shovel tests and one precontact era artifacts from one shovel test.

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

Sensitivity Area	Transect	Planned	Excavated	Not Excavated	Negative	Positive	No. of STPS Yielding Precontact Cultural Material	No. of STPS Post-European Contact Cultural Material
SA-1	1	7	4	3	3	1	1	-
	2	9	7	2	6	1	-	1
	3	12	11	1	11	-	-	-
	4	14	13	1	12	1	-	1
	5	11	10	1	9	1	-	1
	6	9	7	2	6	1	-	1
	7	6	4	2	3	1	-	1
	8	4	3	1	3	-	-	-
	Radials	-	3	1	3	-	-	-
TOTAL		72	62	14	56	6	1	5

The subsurface testing of Sensitivity Area SA-1 led to the identification of a single typical soil profile that was characterized by plowed soils on top of intact subsoils. This profile was also representative of shovel tests within Sensitivity Areas SA-2 and SA-3. A typical shovel test reached an average depth of 95 centimeters below surface (cmbs) (37.4 inches below surface [inbs]) (Figure 15). Shovel tests that did not reach this depth were impeded by the presence of dense deposits of rocks and roots that occurred anywhere between 22 and 70 cmbs (8.7 and 27.6 inbs). The uppermost layer of was described as a Ap-Horizon (plowzone) that extended from 0 to 28 cmbs (0 to 11.0 inbs). It was described as a layer of dark brown (10YR 3/3) silt. The underlying B1-Horizon (subsoil) was characterized as a deposit of yellowish brown (10YR 5/4) fine-to-medium sand and extended from 28 to 50 cmbs (11.0 to 19.7 inbs). The B2-Horizon (subsoil) was situated below the B1-Horizon and described as layer of light yellowish brown (10YR 6/4) fine-to-medium sand; it was identified between 50 to 80 cmbs (19.7 to 31.5 inbs). The final soil deposit was a glacially derived C-Horizon that consisted of deposit of light olive brown (2.5Y 5/4) fine-to-medium sand that was often encountered at 80 cmbs (31.5 inbs).

Of the positive shovel test pits excavated during the Phase IB subsurface testing effort of Sensitivity Area SA-1, five (83 percent) yielded 9 post-European Contact period artifacts. Laboratory analysis of the artifacts revealed that they represented examples of indeterminate bottle glass (n=2) and flat glass (n=1), whiteware sherds (n=2), gray-bodied domestic stoneware sherds (n=1), machine-cut nails (n=1), and wire nails (n=1). These artifacts have a general date range of the nineteenth century (Table 4; Photo 13). They were recovered from areas clustered around the northern side of the informal road that bisects the project parcel and are likely affiliated with the transportation and agricultural uses of the land. 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. Thus, the post-European contact period artifacts lacks research potential was assessed as not significant applying the qualities of significance applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). Heritage does not recommend further investigation of this low-density artifact concentration of post-European Contact material.

Table 4. Overview of Post-European Contact Period Material Recovered From SA-1 During the Phase IB Survey.

Area	Soil Horizon	Artifact Class	Artifact Type	Description	Total
SA-1	Ap	Ceramic	Whiteware	Undecorated	2
			Gray-Bodied Domestic Stoneware	Salt Glaze	1
		Glass	Indeterminate Bottle	Aqua	2

	Metal	Flat Glass	Aqua	1
		Iron	Machine-Cut Nail	1
			Wire Nail	2
Ap Total				9
SA-1 Total				9

In addition, the Phase IB survey resulted in the identification of a precontact era find spot in the northeastern corner of Sensitivity Area SA-1. This find spot was designated as ISO-1 (see Figures 13 and 14). Excavation of ISO-1 resulted in the collection of a single quartz flake fragment that was recovered from the B-Horizon (Photos 14 and 15). A total of three delineation pits were excavated to the south, west, and east of the find spot; none of these yielded additional cultural material or evidence of buried cultural features. A delineation pit placed to the north of the find spot was left unexcavated due to its proximity to the modern road. Due to the lack of other cultural material associated with ISO-1, this flake was designated as an isolated find and lacks the research potential and the qualities of significance applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). No further investigation of ISO-1 is recommended prior to construction.

Sensitivity Area SA-2

Sensitivity Area SA-2 encompasses 1.62 acres of land situated along the western edge of the Project parcel and is characterized by gently south sloping topography consisting of deciduous wooded areas and brush (Figures 13 and 16; Photo 16). During the Phase IB survey, 26 of 28 (93 percent) planned test pits, as well four radial test pits, were excavated along or adjacent to six survey transects within SA-2 (Table 5). The two unexcavated test pits fell within areas of existing disturbances, including the modern road and a large pile of deadfall. The subsurface testing effort of Sensitivity Area SA-2 resulted in five shovel tests that yielded post-European Contact period material and three shovel tests that contained both post-European Contact period and precontact era materials. These shovel tests were designated as Locus 2.

Table 5. Overview of Phase IB SA-2 Shovel Testing Results.

Sensitivity Area	Transect	Planned	Excavated	Not Excavated	Negative	Positive	No. of STPS Yielding Multiple Components of Cultural Material	No. of STPS Post-European Contact Cultural Material
SA-2	1	2	2	-	2	-	-	-
	2	6	6	-	6	-	-	-
	3	6	6	-	4	2	-	2
	4	6	5	1	4	1	-	1
	5	4	4	-	2	2	2	-
	6	2	1	1	1	-	-	-
	Radials	-	4	-	1	3	1	2
TOTAL		26	28	2	20	8	3	5

Locus 2 was situated in the western portion of Sensitivity Area SA-2 and was concentrated around the positive test pits identified within the sensitivity area during the subsurface testing effort. A total of 20 post-European Contact period artifacts were recovered from Locus 2. Laboratory analysis of the artifacts revealed that they represented examples of colorless indeterminate bottle glass (n=1), curved glass (n=2), and flat glass (n=3) of indeterminate manufacture. In addition, ceramic sherds recovered from Locus 2 consisted of creamware (n=1), pearlware (n=1), redware (n=4), whiteware (n=2), and an unidentified refined earthenware (n=1). The remaining artifacts consisted of brick (n=1), an unidentified

iron fragment (n=1), machine-cut nails (n=1), and wire nails (n=1). These artifacts have a general date range of the late-eighteenth through the nineteenth centuries (Table 6; Photos 17 and 18).

Table 6: Overview of Post-European Contact Period Material Recovered From Locus 2 During the Phase IB Survey.

Locus	Soil Horizon	Artifact Class	Artifact Type	Description	Total	
2	Ap/Fill	Glass	Indeterminate Bottle	Colorless	1	
	Ap/Fill Total				1	
	Ap	Ceramic		Creamware	Undecorated	1
				Indeterminate, Refined Earthenware	Missing Glaze	1
				Pearlware	Undecorated	1
			Redware	Lead Glazed	1	
				Missing Surface	2	
			Unglazed	1		
			Whiteware	Undecorated	2	
		Brick	-	2		
		Glass	Curved Glass	Aqua	1	
				Colorless	1	
			Flat Glass	Colorless	2	
		Light Green		1		
	Metal	Iron	Indeterminate	1		
			Machine-Cut Nail	1		
			Wire Nail	1		
	Ap Total				19	
	TOTAL				20	

All but one of the artifacts dating from the post-European Contact period were recovered from the plowzone; a single glass shard yielded from a mixed fill and plowzone context. In addition, Locus 2 is located within close proximity to New London Road and the carriage loop located on the parcel. Thus, the post-European Contact period artifacts are likely affiliated with the general use of the land for agricultural purposes and the transportation. However, the post-European Contact period material was not being recovered in significant concentrations or in association with any architectural features; thus, this material was characterized as field scatter. Thus, the post-European contact period artifacts lack research potential and the qualities of significance applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). Heritage does not recommend further investigation of the low-density artifact concentration of post-European Contact material within the Locus 2 area.

In addition, a single quartz flake and 3 pieces of calcined bone were recovered from Locus 2 (Photos 17 and 18). The quartz flake dates from the precontact era; however, no diagnostic materials were found during the investigation to indicate further temporal affiliation. It was recovered from the intact B-Horizon. In contrast, the 3 pieces of calcined bone were recovered from the plowzone within shovel tests in the vicinity the quartz flake. These calcined bones were recovered from two types of contexts: shovel containing solely post-European Contact period artifacts or those that contained no further cultural material. Thus, the calcined bone has an unaffiliated temporal designation, and thus was preliminarily classified as multi-component. Due to the lack of substantial deposits and evidence of buried cultural features, the precontact era component of Locus 2 was also assessed as not eligible applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of this component of Locus 2 is recommended prior to construction.

Sensitivity Area SA-3

Sensitivity Area SA-3 encompasses 3.09 acres of land situated along the southern border of the Project parcel and is characterized by gently south sloping topography consisting of deciduous wooded areas and dense brush (Figures 13 and 17; Photos 19 and 20). During the Phase IB survey, 49 of 52 (94 percent) of planned test pits, as well as four radial shovel test, were excavated along or adjacent to seven transects within SA-3 (Table 7). The three unexcavated test pits fell within areas of existing disturbances, including dense vegetation. The subsurface testing effort of Sensitivity Area SA-3 resulted post-European Contact cultural material from four shovel tests, precontact era artifacts from one materials, a mixture of both precontact era and post-European Contact period artifacts from one shovel test.

Table 7. Overview of Phase IB SA-3 Shovel Testing Results.

Sensitivity Area	Transect	Planned	Excavated	Not Excavated	Negative	Positive	No. of STPS Yielding Multiple Components of Cultural Material	No. of STPS Post-European Contact Cultural Material	No. of STPS Precontact Era Cultural Material
3	1	4	3	1	3	-	-	-	-
	2	7	6	1	6	-	-	-	-
	3	11	10	1	8	2	1	1	-
	4	11	11	-	11	-	-	-	-
	5	10	10	-	8	2	-	2	-
	6	8	8	-	8	-	-	-	-
	7	1	1	-	1	-	-	-	-
	Radials	-	4	-	2	2	-	1	1
TOTAL		52	53	3	47	6	1	4	1

Of the positive test pits excavated during the Phase IB subsurface testing effort, 3 (50 percent) were designated as part of Locus 1, which was situated in the southeastern corner of the sensitivity area (Figures 13 and 17). Locus 1 was a multi-component artifact concentration that yielded two post-European Contact period artifacts and two precontact era lithic objects. The post-European Contact period artifact assemblage from Locus 1 consisted of a green transfer printed whiteware sherd and a colorless indeterminate bottle base (Photos 21 and 22). These artifacts date range from the nineteenth century. The precontact era artifacts within Locus 1 consisted of 2 quartz flakes, one of which was recovered from a survey shovel test and the other of which was yielded from a delineation shovel tests (Table 7). These artifacts were all recovered from the plowzone. Due to a lack of substantial numbers of artifacts recovered, as well as an absence of buried or above ground cultural features, not the precontact era and post-European Contact period deposits within the Locus 1 area were assessed as not eligible applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). No additional archaeological examination of this component of Locus 1 is recommended prior to construction.

Table 8. Overview of artifacts recovered from SA-3 during the Phase IB survey.

SA	Locus	Soil Horizon	Artifact Class	Artifact Type	Description	Total	
3	-	Fill	Metal	Iron	Indeterminate	1	
		Fill Total					1
		Ap	Ceramic	Whiteware	Undecorated	1	
			Glass	Indeterminate Bottle	Colorless	1	
		Ap Total					2

	Total				3
1	Ap	Ceramic	Whiteware	Transfer Printed	1
		Glass	Indeterminate Bottle	Colorless	1
		Lithic	Flake	Quartz	2
	Ap Total				4
Locus 1 Total					4
TOTAL					7

The remaining three positive test pits within Sensitivity Area SA-3 yielded post-European Contact period materials only, including a colorless bottle glass shard, an unidentified iron fragment, and plain whiteware ceramic sherd (Table 8). These artifacts were recovered from three spatially discrete shovel tests and represented the only materials recovered from each one. This material was characterized as unassociated field scatter. These locations lack research potential and the qualities of significance applying the NRHP criteria for evaluation (36 CFR 60.4 [a-d]). Heritage does not recommend further investigation of these three areas prior to construction.

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APPENDIX A

FIGURES

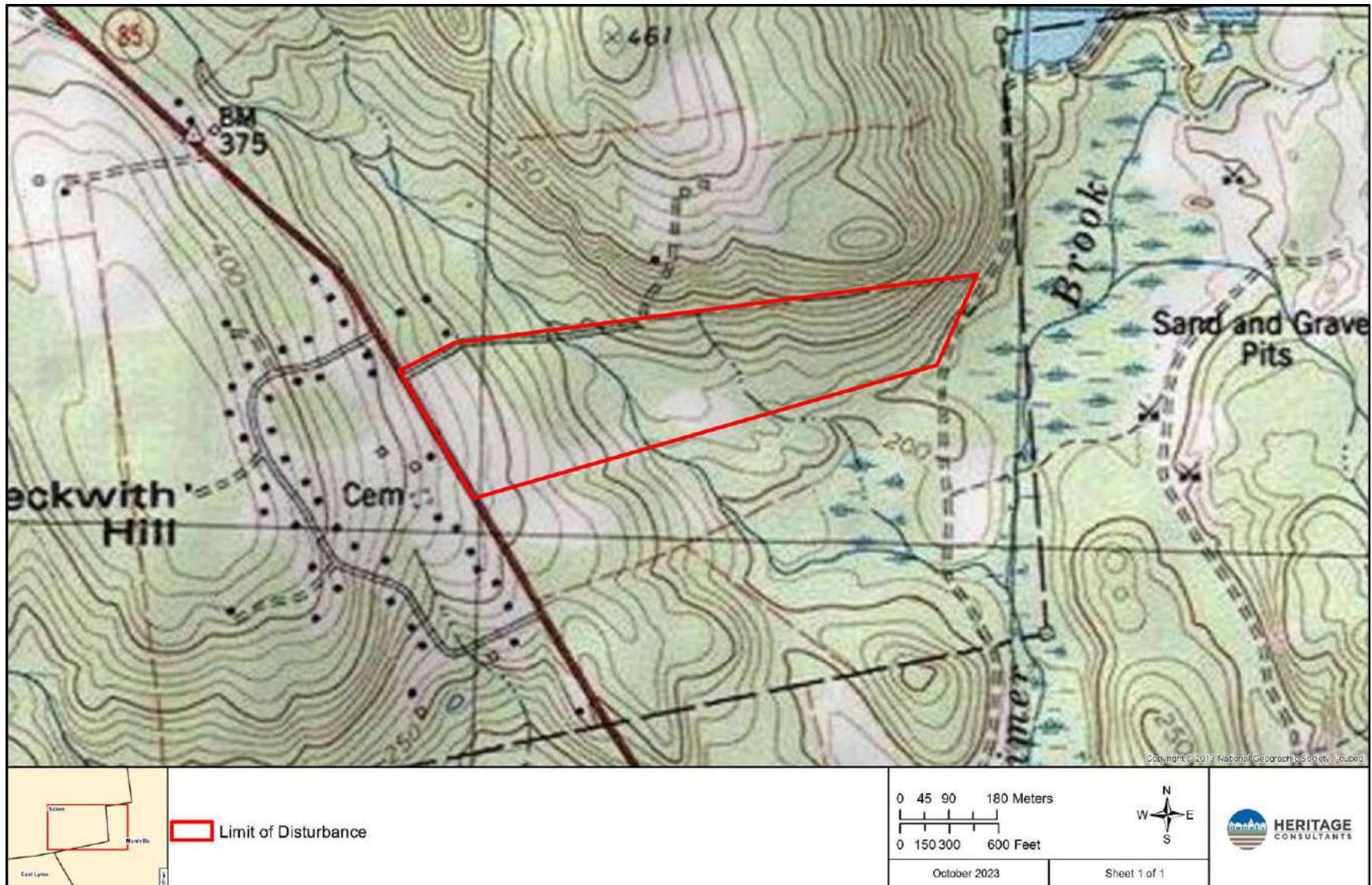


Figure 1. Excerpt from a USGS 7.5' series topographic quadrangle image showing the location of the project parcel in Salem, Connecticut.

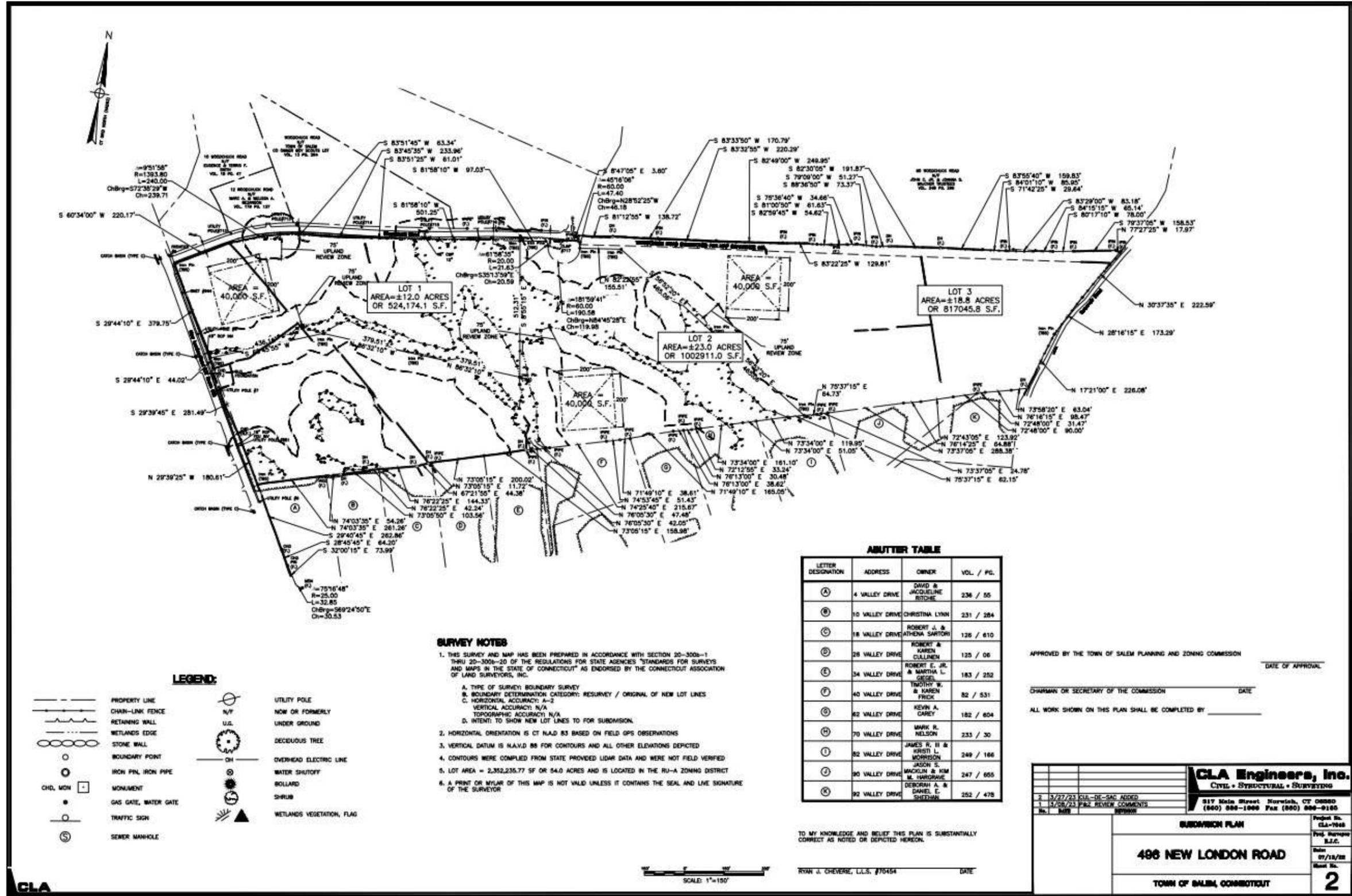


Figure 2. Project plans for the proposed Salem Landing Development Project located at 496 New London Road in Salem, Connecticut.

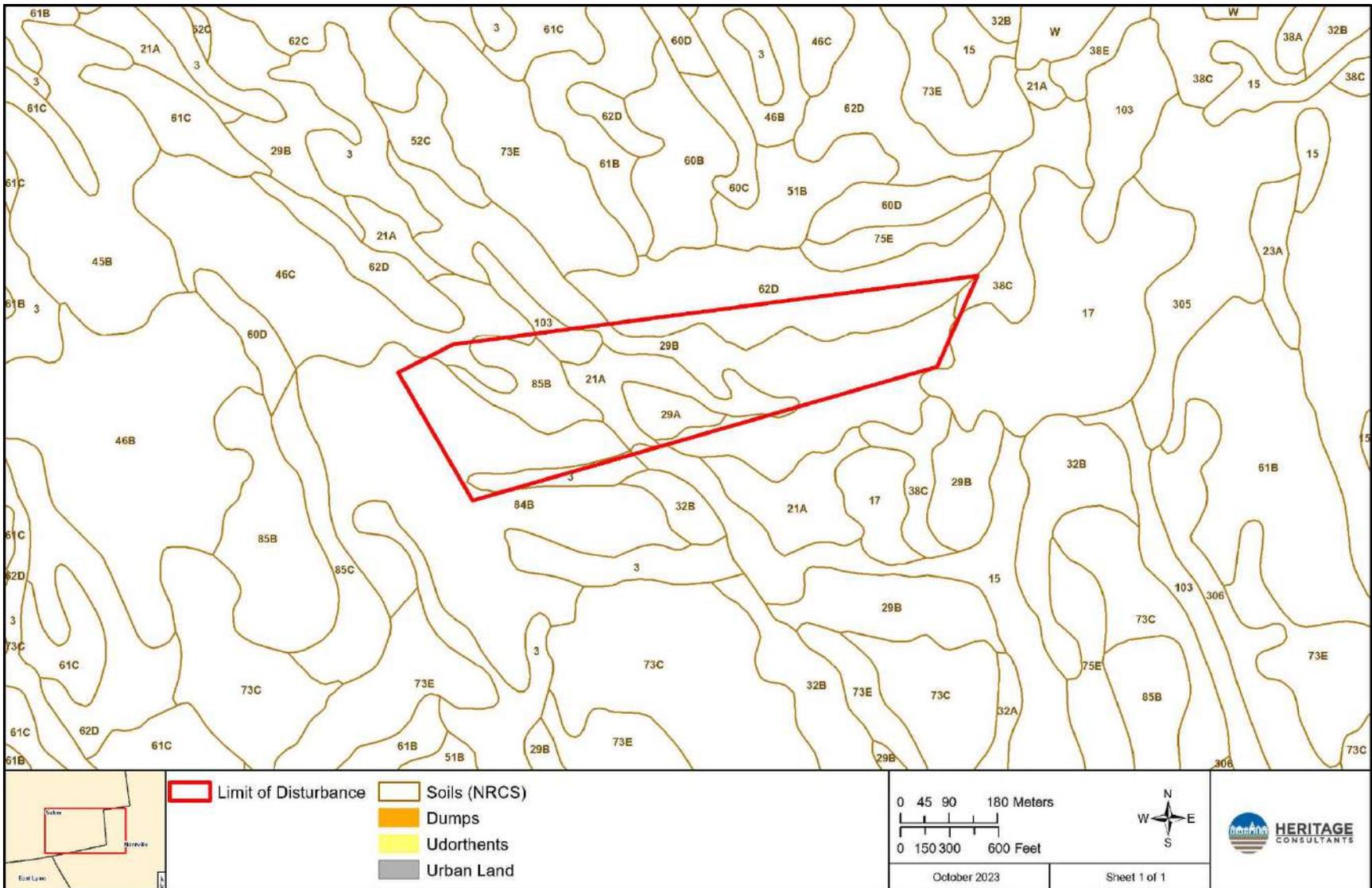


Figure 3. Digital map depicting the soil types present in the vicinity of the Project parcel in Salem, Connecticut.

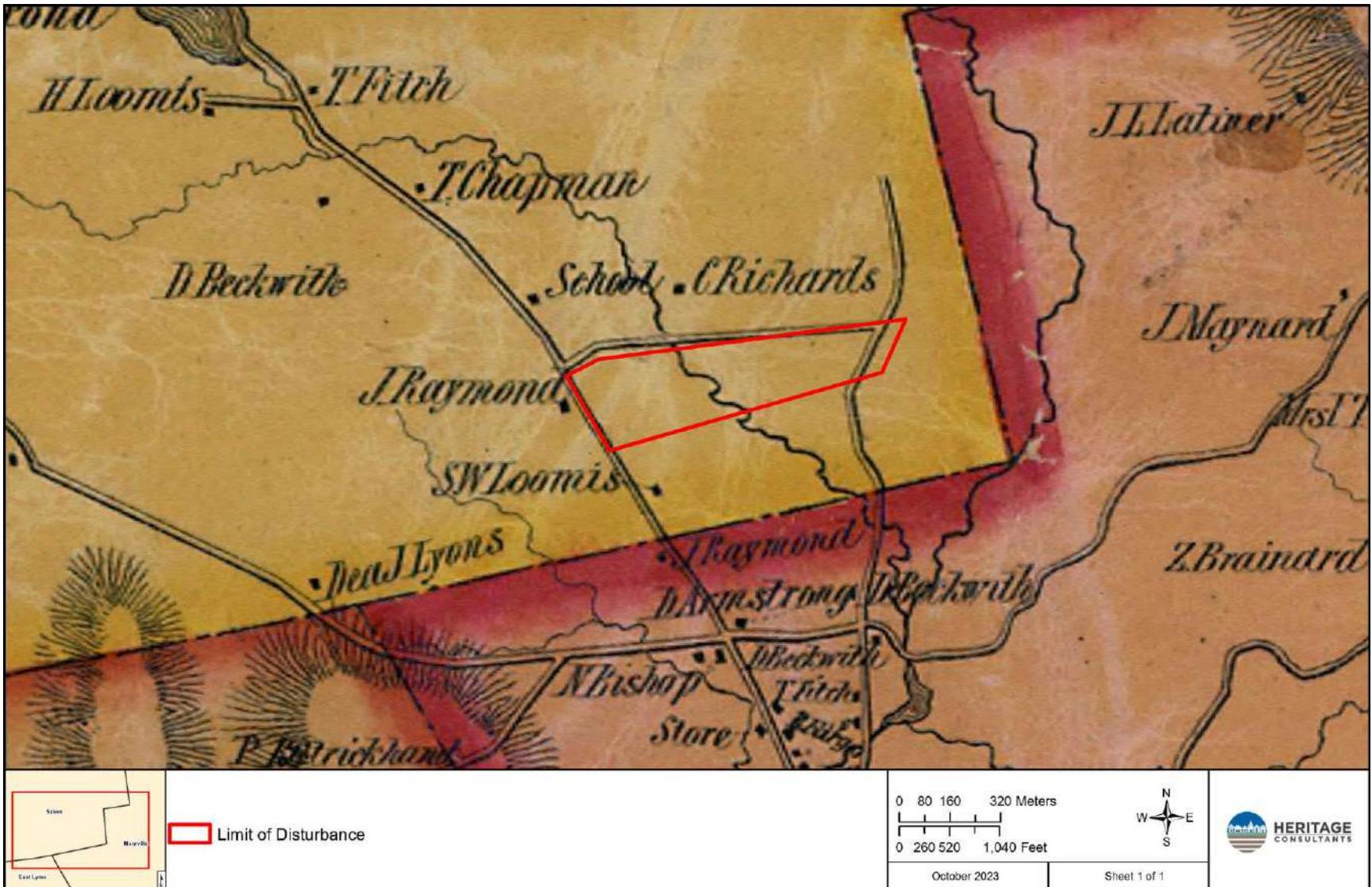


Figure 4. Excerpt from an 1854 map showing the location of the project parcel in Salem, Connecticut.

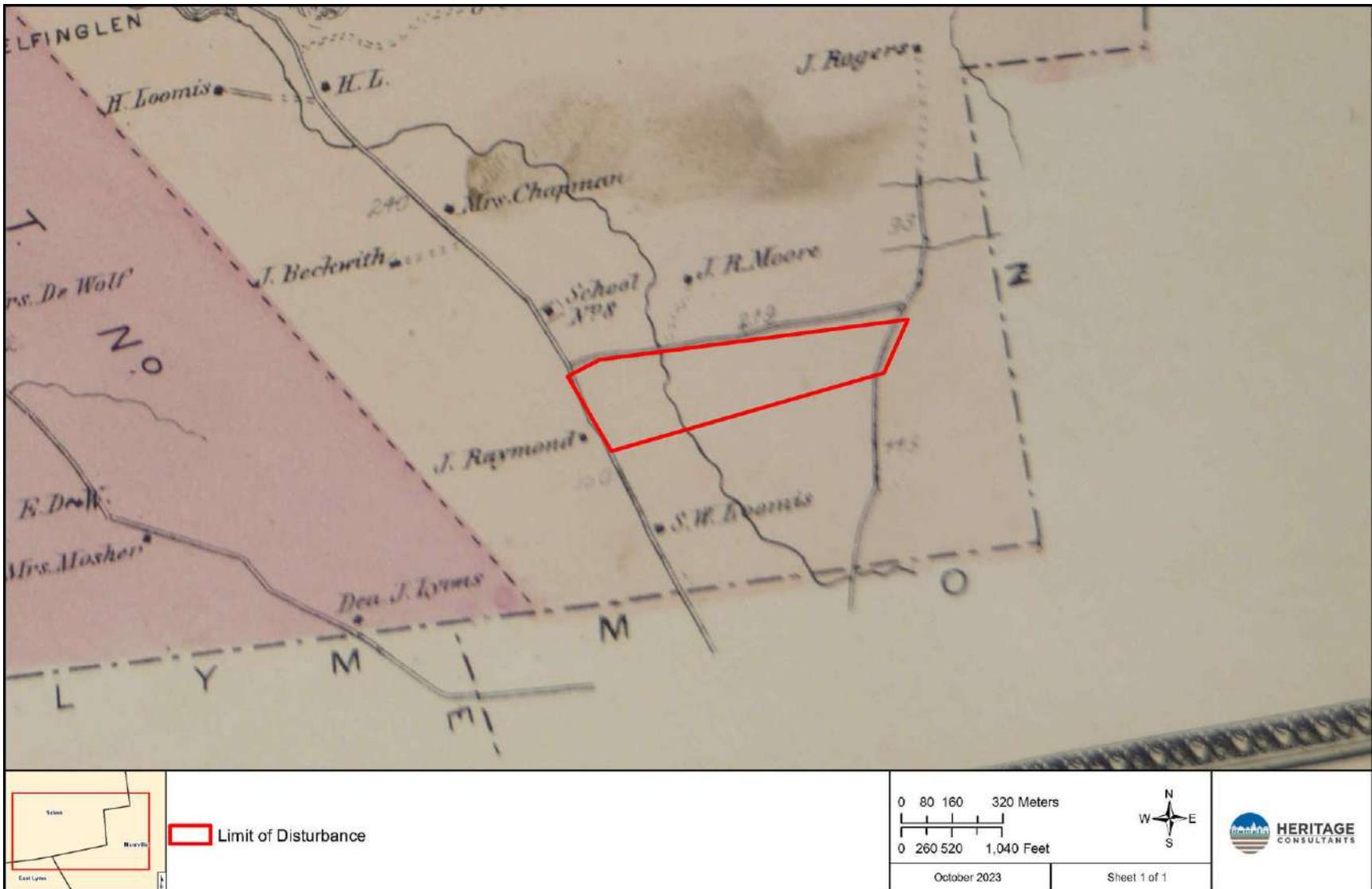


Figure 5. Excerpt from an 1868 map showing the location of the project parcel in Salem, Connecticut.



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



Figure 7. Excerpt of a 1990 aerial photograph showing the location of the project parcel in Salem, Connecticut.



Figure 8. Excerpt of a 2004 aerial photograph showing the location of the project parcel in Salem, Connecticut.

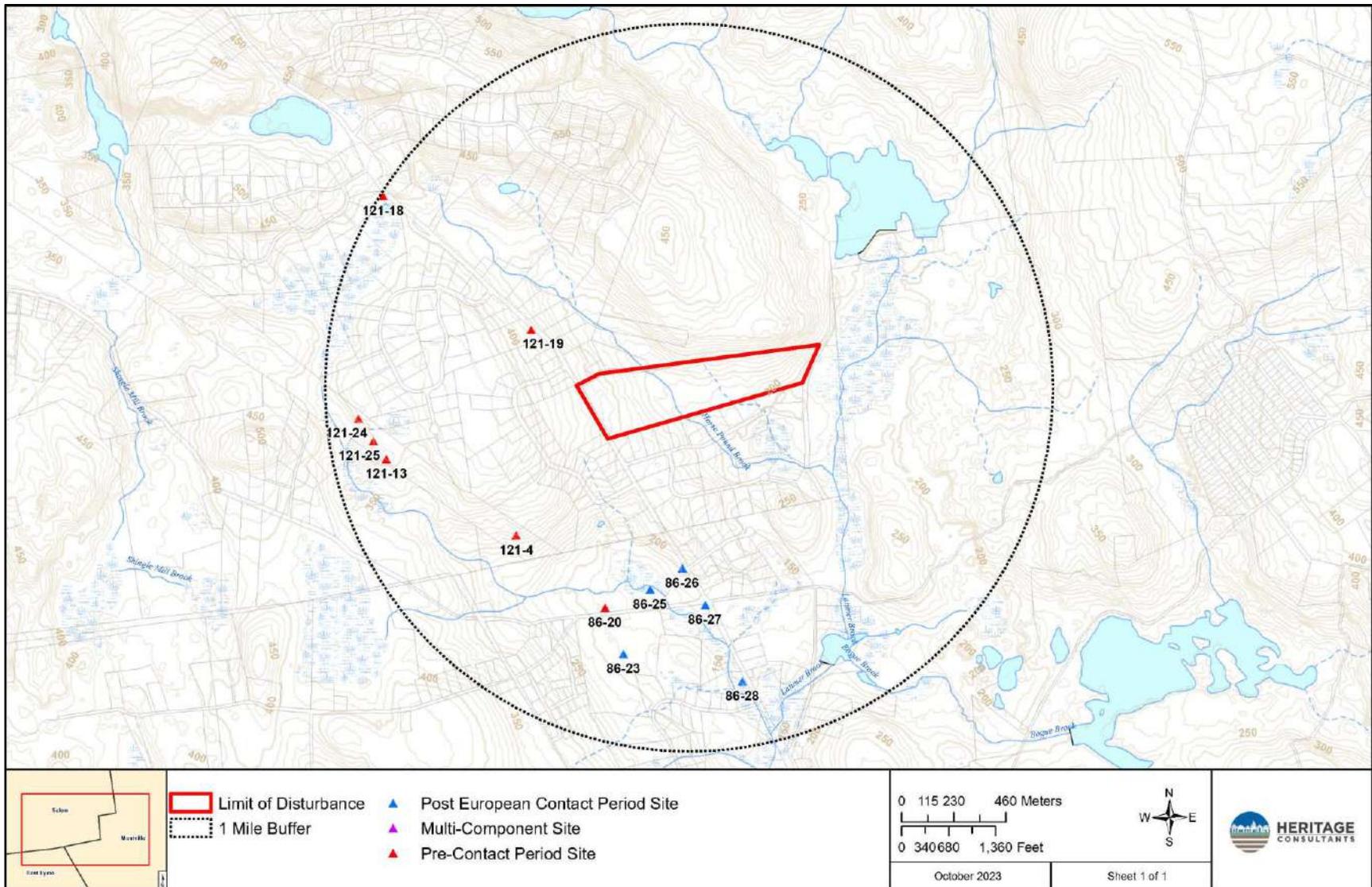


Figure 10. Digital map depicting the locations of the previously identified archaeological sites in the vicinity of the project parcel in Salem, Connecticut.

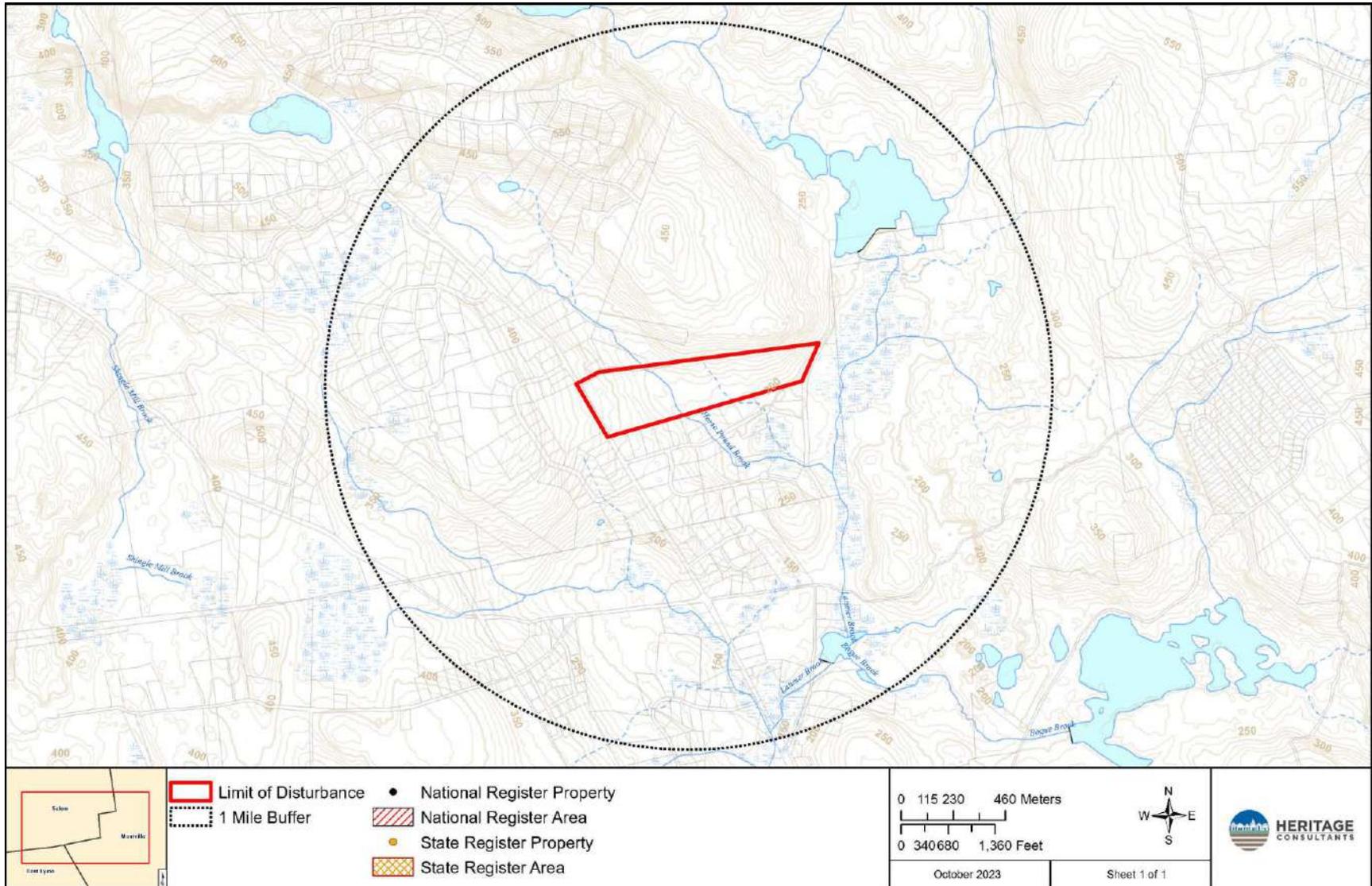


Figure 11. Digital map depicting the locations of the previously identified National Register of Historic Places and State Register of Historic Places properties in the vicinity of the project parcel in Salem, Connecticut.



Figure 12. Digital map illustrating areas of finalized Moderate/High archaeological sensitivity (Red) and areas of No/Low Archaeological Sensitivity (Yellow) for the project area in Salem, Connecticut.

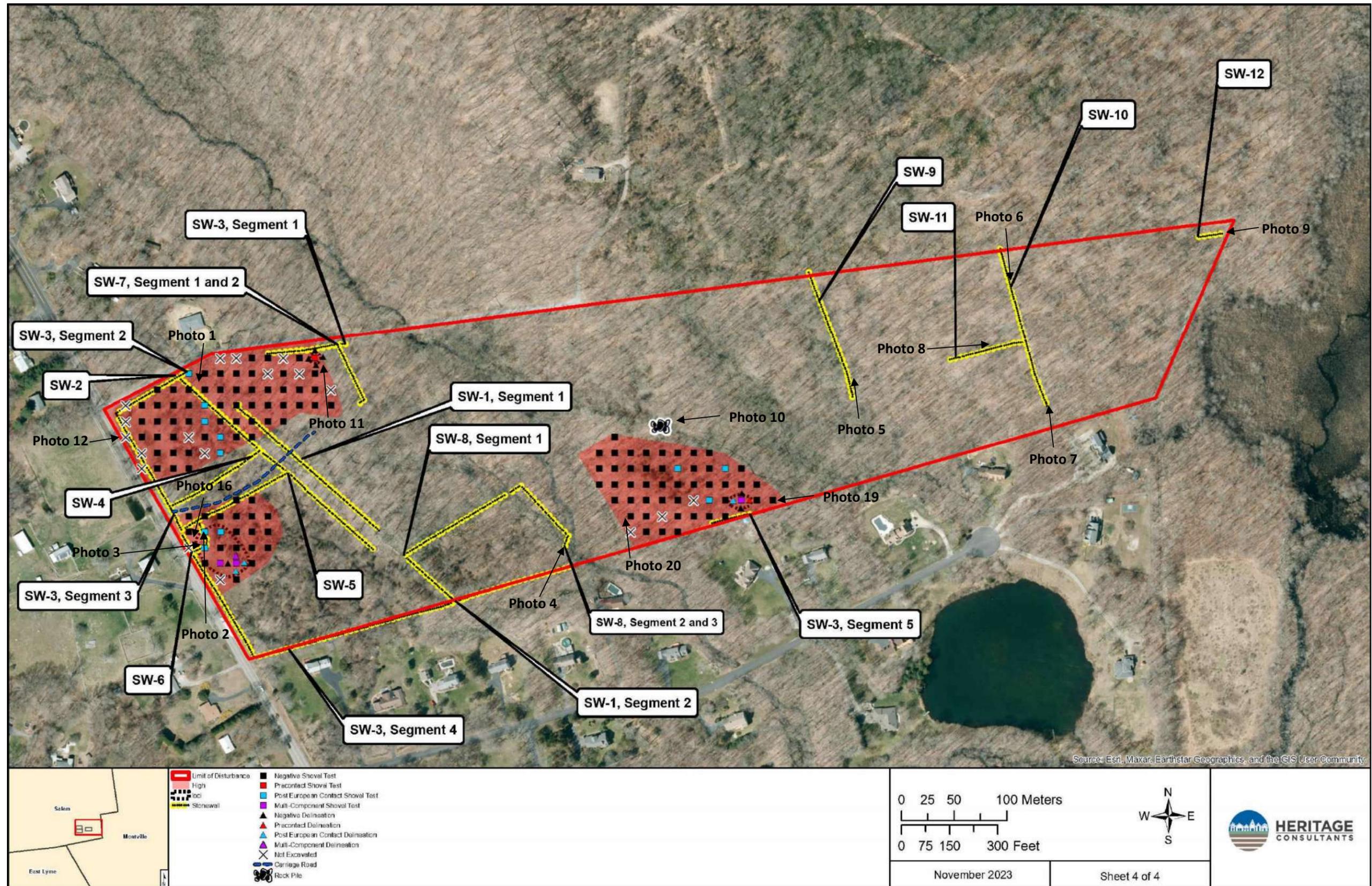


Figure 13. Excerpt from a 2019 aerial image showing the locations of shovel tests, extant features, and photos with directional arrows depicting the Project parcel in Salem, Connecticut.

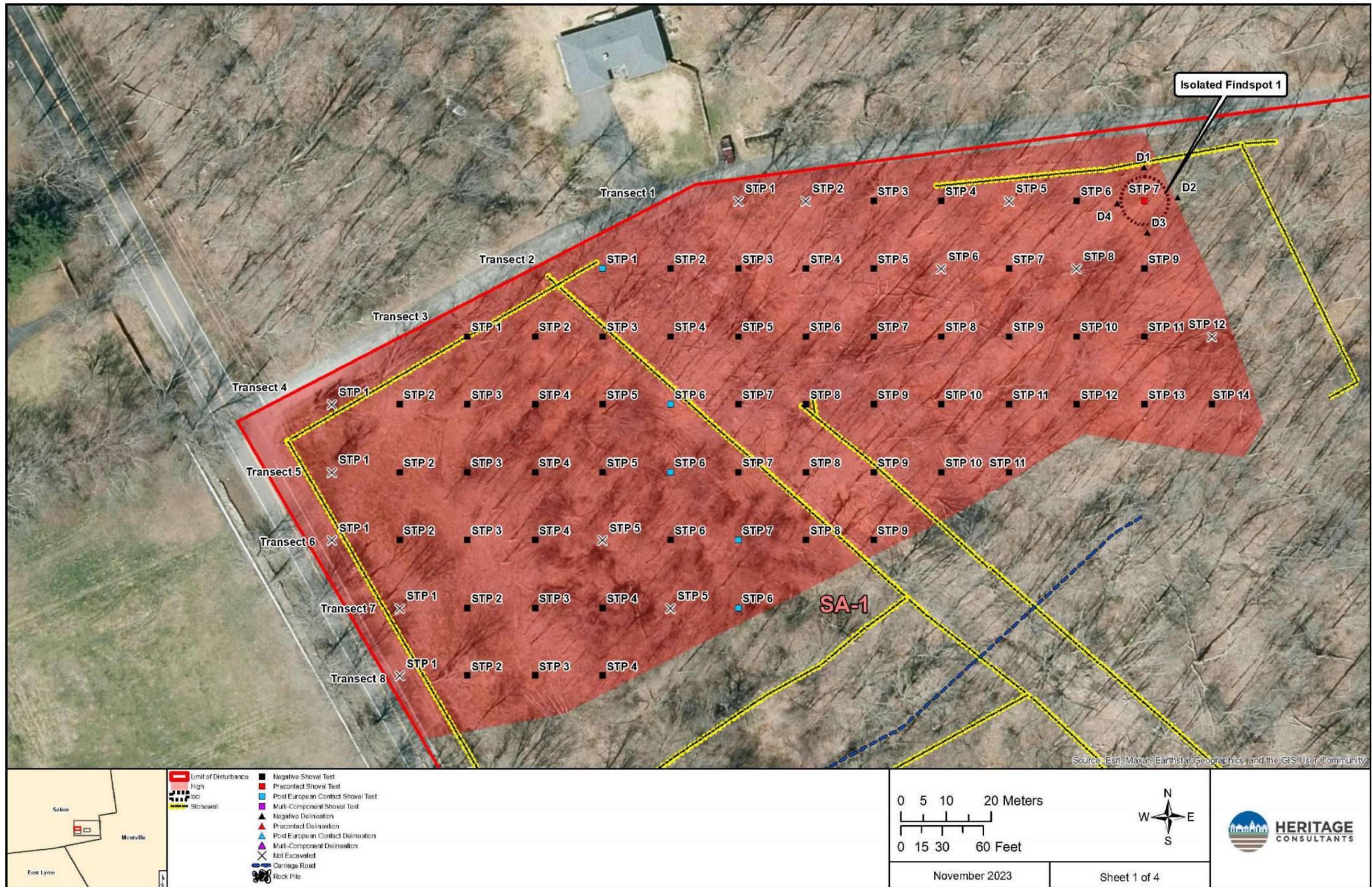


Figure 14. Excerpt from a 2019 aerial image showing the locations of shovel tests and extant features in Sensitivity Area SA-1 in Salem, Connecticut.

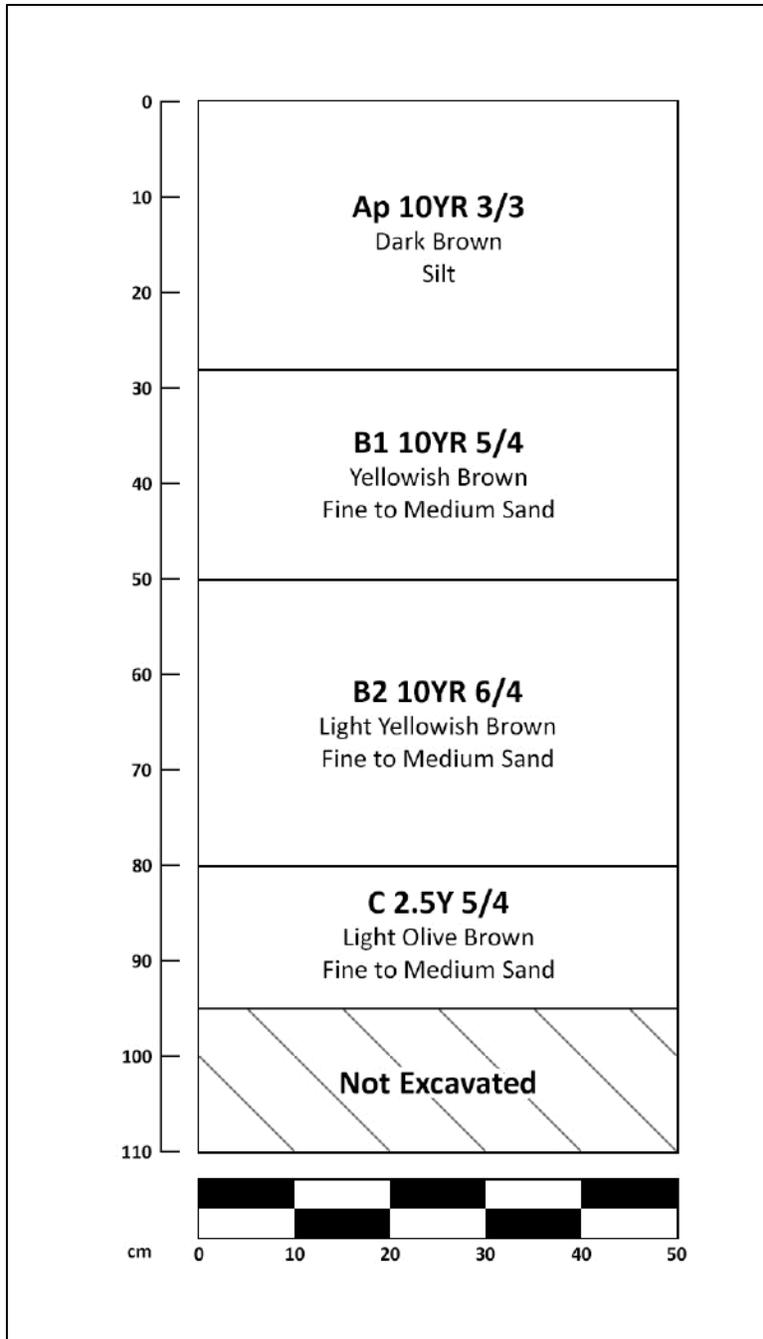


Figure 15. Digital representation of the soil profile of Shovel Test T4P3 in Sensitivity Area SA-1 in the Project parcel in Salem, Connecticut.



Figure 16. Excerpt from a 2019 aerial image showing the locations of shovel tests and extant features in Sensitivity Area SA-2 in Salem, Connecticut.

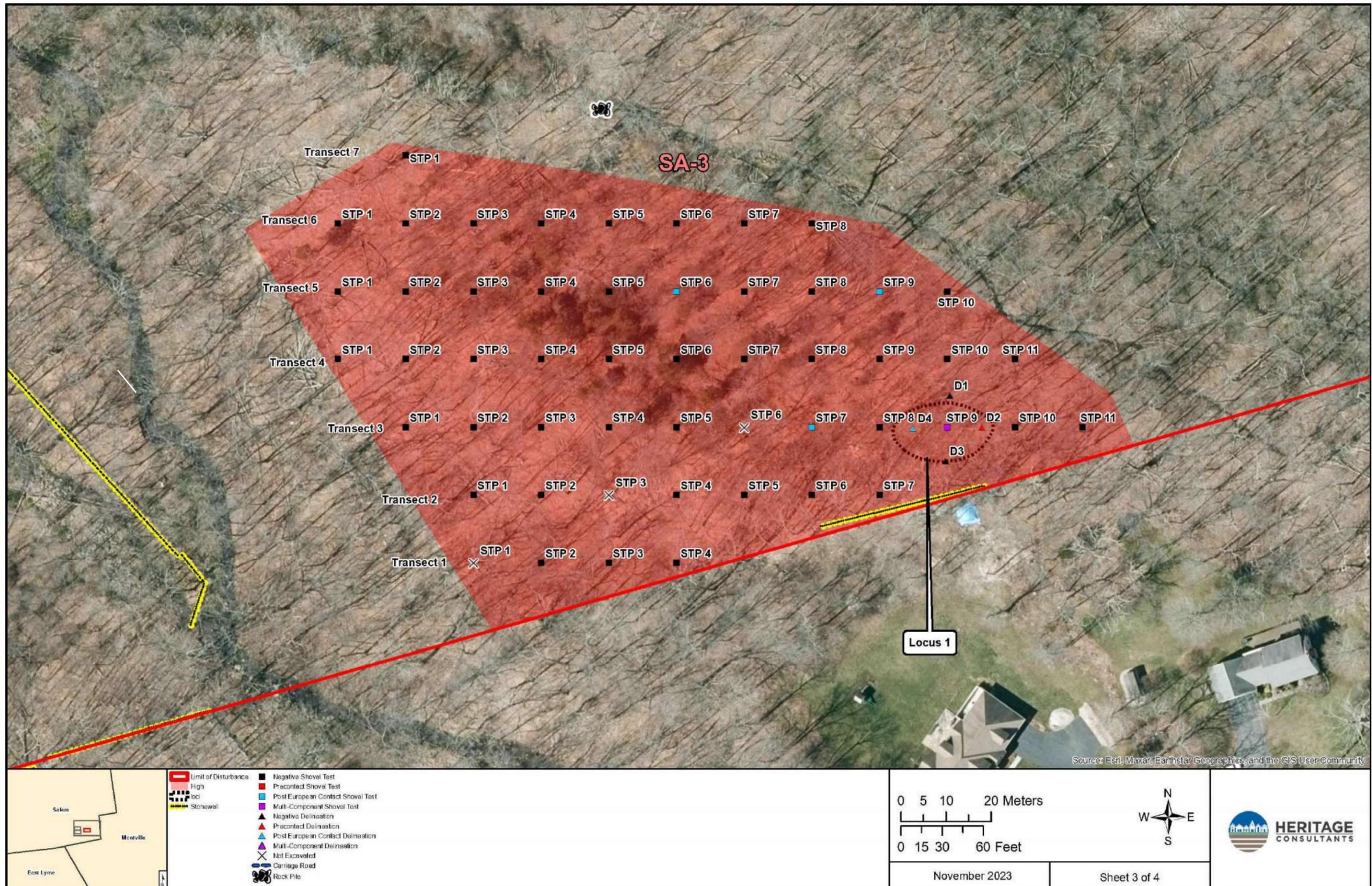


Figure 17. Excerpt from a 2019 aerial image showing the locations of shovel tests and extant features in Sensitivity Area SA-3 in Salem, Connecticut.

APPENDIX B

PHOTOS



Photo 1. Overview of Stonewall 2. Photo facing to the south.



Photo 2. Overview of the intersection of Stonewalls 5 (background) and 6 (foreground). Photo facing to the north.



Photo 3. Overview of Stonewall 6, Segment 2. Photo facing to the east.



Photo 4. Overview of Stonewall 8, Segment 3 running adjacent to Horse Pound Brook. Photo facing to the northeast.



Photo 5. The remnants of Stonewall 9. Photo facing to the north.





Photo 7. An overview of the southern tip of Stonewall 10. Photo facing to the north.



Photo 8. An overview of Stonewall 11. Photo facing to the east.



Photo 9. An overview of Stonewall 12. Photo facing to the west.



Photo 10. An overview of a large pile of rocks. Photo facing to the west.



Photo 11. Overview of southern facing slope on the northern edge of Sensitivity Area SA-1 with Woodchuck Road in the background. Photo facing to the north.

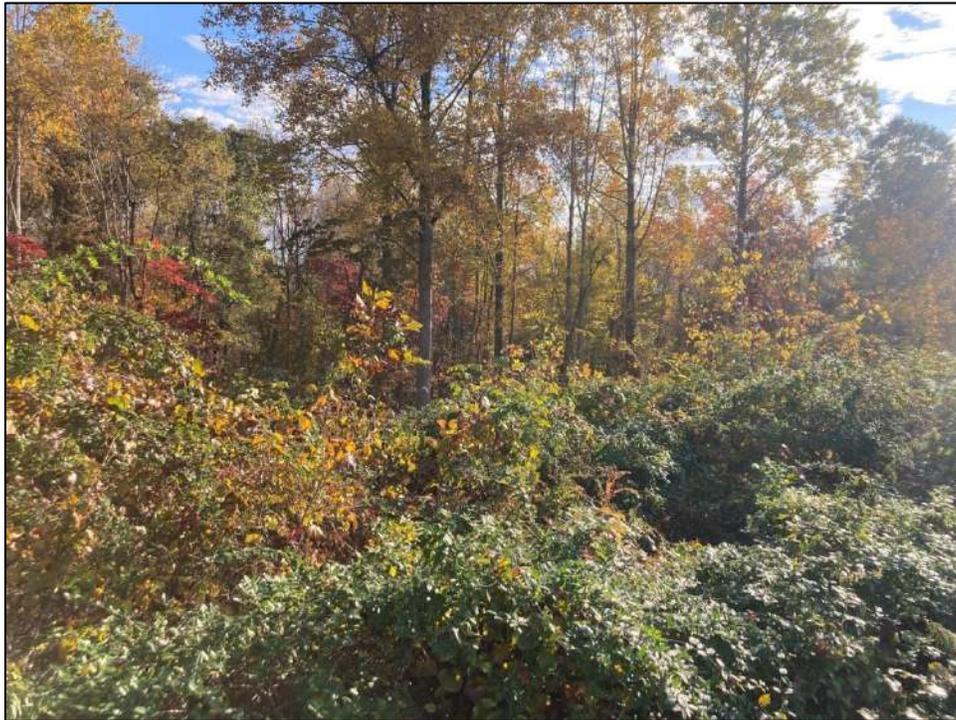


Photo 12. Overview of Sensitivity Area SA-1. Photo facing to the east.



Photo 13. Sample of post-European Contact period assemblage recovered from Sensitivity Area SA-1: A) aqua indeterminate bottle glass shard; B) whiteware sherd; C) gray-bodied domestic stoneware ceramic sherd; D) machine-cut nail.



Photo 14. A quartz flake recovered from ISO-1; Side A.



Photo 15. A quartz flake recovered from ISO-1; Side B.



Photo 16. An overview of Sensitivity Area SA-2 with the Elijah Ransom House and Stonewall 6 in the background. Photo facing to the southwest.



Photo 17. Sample of multi-component assemblage recovered from Locus 2; Side A: A) aqua curved glass shard; B) machine-cut nail; C) quartz flake fragment; D) lead glazed redware ceramic sherd; E) creamware ceramic sherd; F) pearlware ceramic sherd.



Photo 18. Sample of multi-component assemblage recovered from Locus 2; Side B: A) aqua curved glass shard; B) machine-cut nail; C) quartz flake fragment; D) lead glazed redware ceramic sherd; E) creamware ceramic sherd; F) pearlware ceramic sherd.



Photo 19. An overview of Sensitivity Area SA-3. Photo facing to the west.



Photo 20. An overview of Sensitivity Area SA-3. Photo facing to the north.



Photo 21. Multi-component assemblage recovered from Locus 1; Side A: A) colorless indeterminate bottle glass shard; B) quartz flake fragment; C) quartz flake distal fragment.



Photo 22. Multi-component assemblage recovered from Locus 1; Side B: A) colorless indeterminate bottle glass shard; B) quartz flake fragment; C) quartz flake distal fragment.