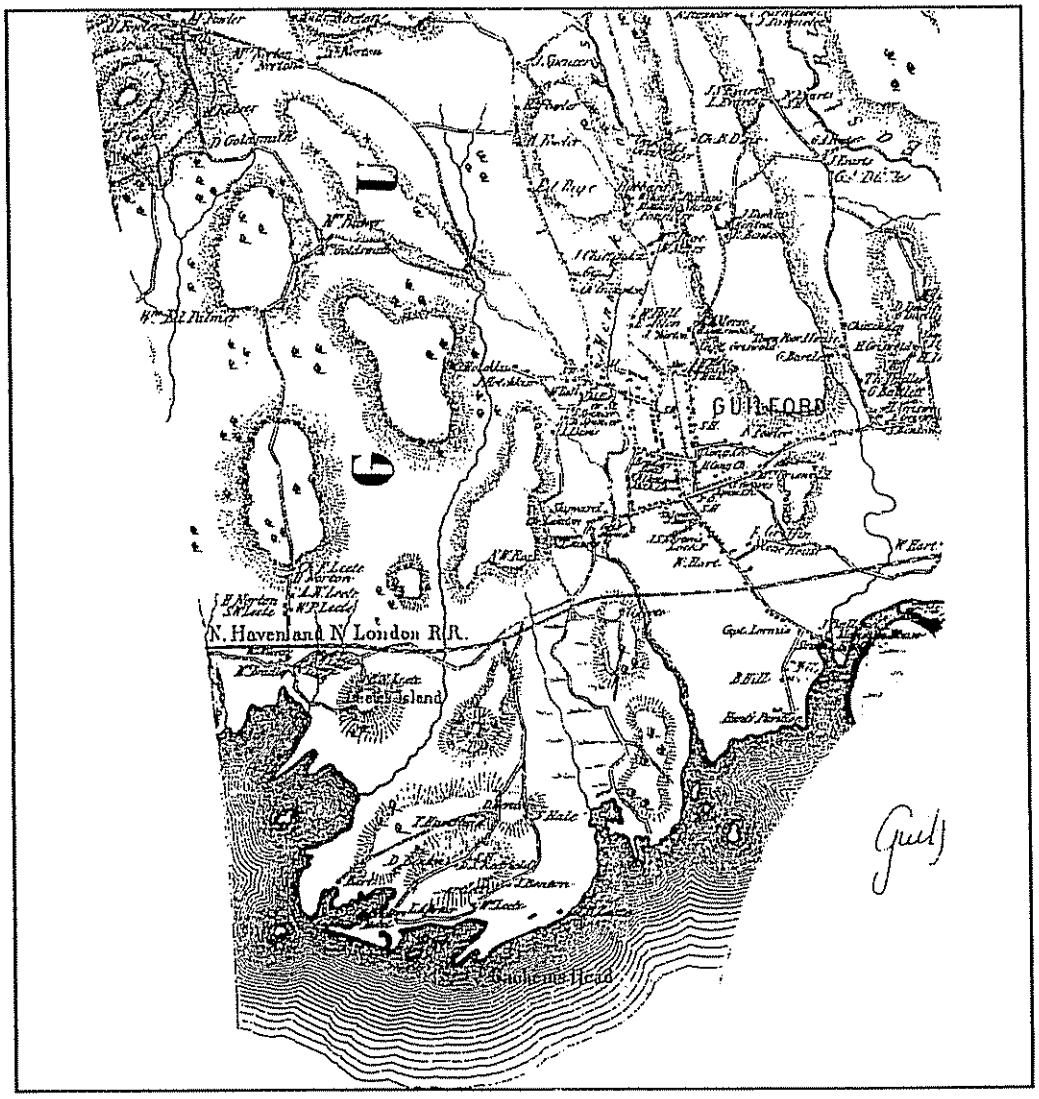
Phase Ia Archaeological Assessment Survey
of the
Proposed Office Complex: Boston Post Road at I-95, Exit 57
in the
Town of Guilford, Connecticut

January, 2005



ACS

◆ *Archaeological Consulting Services* ◆

Phase Ia Archaeological Assessment Survey
of the
Proposed Office Complex: Boston Post Road at I-95, Exit 57
in the
Town of Guilford, Connecticut

by

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January, 2005

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Abstract

This report contains the results of a Phase Ia archaeological assessment survey conducted by ACS during the month of January, 2005. The project calls for an evaluation of possible cultural resources to be affected by the proposed construction of an office complex on an undeveloped portion of a property in the town of Guilford, Connecticut. The project area lies in western Guilford, just northwest of a small commercial development at the Exit 57 south-bound off-ramp of Interstate 95 and just northeast of the Boston Post Road (U.S. Route 1). The property is also flanked by Joan Drive to the northwest and Spinning Mill Brook to the northeast. The property actually consists of three lots, two measuring on the order of 12 acres, the other just a few acres for a total of about 26 acres for the whole property. The smallest lot lies along the northeast boundary of Route 1 and presently contains a commercial structure in the vicinity of a self-storage center and a cell tower. Site plans for the rest of the project property have yet to be submitted, although a wetlands map of the area was provided by BL Companies, Inc., an engineering firm based in Meriden, Connecticut.

The landscape setting of the property consists of a prominent hill flanked by steep slopes descending towards the surrounding roads and stream. Soil types consist of Hollis and Charlton very rocky fine sandy loams. There is presently a low grass - scrub growth cover on the hill top that appears to have been truncated by heavy machinery. Exposures of the underlying bedrock at the surface reveal a granitic gneiss that is steeply inclined, with the strike of the beds parallel to the length of the hill ridge. The steeper flanks of the hill bear a secondary forest cover, particularly along Spinning Mill Brook. A small, narrow part of the southern end of the property presently contains septic facilities and extends to the southeast of the brook where it is partially dammed to form a marsh in a lower lying wooded area, although this latter section will not be a part of the project development. Recent use of the project area appears to be limited to unauthorized dumping, with modern debris including structural, industrial, and larger household items. A pedestrian surface survey of the property revealed no prehistoric or historic artifacts or features. Structural developments on or adjacent to the project area include the cell tower, self-storage facility, and commercial structure mentioned above, as well as a driveway leading to a paved parking area at the very southern end associated with the commercial development off the property below, and a partially constructed concrete and steel bridge across Spinning Mill Brook to the southeast.

A statistical landscape sensitivity model created and employed by ACS indicates that the project area bears a low potential for prehistoric cultural resources. The low sensitivity of the project area is largely based on steep slopes and rocky soil types. The top of the hill ridge has additionally been stripped of its topsoil and any chance for containing either prehistoric or historic subsurface contexts. The rest of the project area consists of very steep to moderate hill slopes. A review of site files housed at the State Historic Preservation Office further indicated no previously recorded prehistoric sites on or near the project property. Land records and historic maps also indicate prior use of the property was likely limited to pasturing and/or the gathering of cord wood. Finally, local informants confirm that the project area has been highly disturbed in the recent past by landscape clearing activities.

Based on ecological aspects, historic records, informant interviews, and a pedestrian surface survey, it is clear that the project area is not likely to contain potentially significant cultural resources. It is therefore recommended that the project area does not require further archaeological investigations related to the pending project. The assessment survey was conducted in conformance with guidelines issued by the Connecticut State Historic Preservation Office.

Project Summary

Project Name: Proposed Office Complex: Boston Post Road at I-95, Exit 57.

Project Purpose: To evaluate the sensitivity of the project property with respect to the possible presence of prehistoric and/or historic cultural resources in conformance with guidelines issued by the Connecticut State Historic Preservation Office.

Project Management: BL Companies, Inc., Meriden, Connecticut.

Project Location: Western Guilford, northwest of I-95 - Exit 57, northeast of U.S. Route 1, southeast of Joan Drive, southwest of Spinning Mill Brook. Three (3) lots on Guilford Tax Assessor Map #79, consisting of Lot 34 (12 acres), Lot 35 (2.4 acres), and Lot 36A (11.56 acres).

Project Size: Approximately 26 acres.

Investigation Type: Phase Ia archaeological assessment survey.

Investigation Methods: Research, pedestrian surface survey.

Dates of Investigation: January, 2005.

Performed by: ACS (Archaeological Consulting Services), 10 Stonewall Lane, Guilford, Connecticut 06437-2949, (203) 458-0550 (telephone and fax), *www.acsarchaeology.com*, *acsinfo@yahoo.com*.

Principal Investigators: Gregory F. Walwer, Ph.D. and Dorothy N. Walwer, M.A.

Submitted to:
BL Companies, Inc. (William T. Fries), 355 Research Parkway, Meriden, CT 06450, (203) 630-1406.

Reviewing Agency (Anticipated):
Office of State Archaeology (Dr. Nicholas F. Bellantoni, State Archaeologist), University of Connecticut, U-23, Storrs, Connecticut 06269-3023, (860) 486-5248.

Recommendations: Cultural resources identified on the property are limited to modern debris at the surface, representing unauthorized dumping. The property has been further impacted by heavy landscaping and the removal of topsoil from the hilltop. Given various ecological and historic factors, it is unlikely that the project area contains potentially significant prehistoric or historic cultural resources. It is therefore recommended that no further archaeological conservation efforts are warranted.

Acknowledgements

ACS is indebted to the following people whose assistance helped to make the execution of this project more accessible and thorough:

Dr. David Poirier, Staff Archaeologist for the State Historic Preservation Office, Connecticut Historical Commission, in Hartford, Connecticut. ACS thanks Dr. Poirier for his help in procuring prehistoric and historic sources pertaining to the region surrounding the project property.

Dr. Nicholas Bellantoni, State Archaeologist at the Connecticut Office of State Archaeology in Storrs, Connecticut. ACS thanks Dr. Bellantoni for directing ACS towards helpful background research sources relating to the prehistory and history of the region.

Hon. Joel Helander, Town Historian of Guilford, Connecticut. ACS thanks his honor for information regarding the history of the project area and surrounding vicinity.

Mr. Michael McBride, Curator of the Henry Whitfield State Historical Museum in Guilford, Connecticut. ACS thanks Mr. McBride for his provision of research materials regarding former excavations at the Whitfield Museum and early history of Guilford.

Mr. William T. Fries, BL Companies, Inc. of Meriden, Connecticut. ACS thanks Mr. Fries for coordinating the project.

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CHAPTER 1: INTRODUCTION

Introduction and Project Description

This report provides the results of a Phase Ia archaeological assessment survey performed by ACS for a potential development on a parcel of land in Guilford, Connecticut. The property is located in western Guilford on the northeast side of Route 1, just northwest of the Interstate 95 - Exit 57 south-bound off-ramp. The overall property is about 26 acres, although it is likely that some portion of the parcel will remain undeveloped. The property consists of three lots, including two measuring roughly 12 acres, and the smaller third parcel already containing a commercial structure, self-storage facility, and cell tower. ACS was contacted to review the project by Mr. William T. Fries of BL Companies, Inc., an engineering firm based in Meriden, Connecticut. Finalized site plans for the project have yet to be submitted, although BL sent ACS inland wetland maps showing property boundaries and existing conditions.

Given various ecological factors and what was already known about the property, ACS conducted a Phase Ia archaeological assessment survey consisting of background research and a pedestrian surface survey. The results of the assessment survey indicated no potential for significant archaeological resources being present in the project area, thus no need to conduct subsurface field testing. The project is being performed in compliance with guidelines issued by the Connecticut State Historic Preservation Office.

Background Research

The broad environmental setting of the project property is within the Eastern Coastal (V-B) ecoregion. The underlying bedrock of the region mostly consists of pre-Cambrian gneisses in excess of 600 million years old. The surficial materials above bedrock consist of locally derived till (t) on relatively steep hill slope surfaces. The project area is essentially a long hill running parallel to Route 1, with Hollis-Charlton (HrC) soils on the ridge top, and steeper Hollis soils (HSE) on the flanks of the ridge. The project area is lined to the northeast by Spinning Mill Brook, a small feeder stream to the larger West River drainage basin (#5110) centered about one mile to the east. Existing buildings front Route 1 towards the west-central section and beyond the very southern end of the project area, while the rest of the project area remains undeveloped.

According to a prehistoric landscape sensitivity model created and utilized by ACS, the project property scores no higher than 12.3 of a possible 100, and therefore well below the moderate to high sensitivity range (20-75). The low statistical sensitivity of the project area generally derives from its steep, rocky, hill slope setting at a considerable distance from the nearest major water source. Regarding potential historic sensitivity, historic maps also show that this was a relatively uninhabited part of Guilford and the post road through time. Historic land records for the property confirm a lack of structural developments, with the lots and surrounding territory largely devoted to pasturing, raising crops, and providing cord wood in an agricultural setting. Informants also indicate that the property has been proposed for a number of developments in recent history, and that various landscaping efforts have severely altered the property.

Field Results

A pedestrian surface survey was conducted for the property on January 10, 2005. A paved entrance and driveway extend into the property from the Boston Post Road near the northern end of the property and just south of Joan Drive. The project area is roughly oval-shaped, bound by Spinning Mill Brook on the northeast, Joan Drive to the northwest, Boston Post Road to the southwest, and a commercial property along an exit off-ramp of Interstate 95 (Exit 57) to the southeast. The property includes a small, narrow strip of land that extends further to the southeast along the off-ramp in a lower lying area, although this latter area will not be a part of the project development area. The bulk of the project area subject to development consists of a prominent hill with steep slopes on all sides but the northwest end. The top of the hill appears to have been truncated by heavy machinery, with exposed bedrock and stripped topsoil evident throughout. There is a light grass and scrub growth cover on most of the property, with more developed scrub growth and secondary forest cover on the steep hill slopes. Surface visibility at the time of the pedestrian surface survey was good, with a light patchy snow cover obscuring roughly 20 percent of the surface. The property is currently vacant, although apparently utilized for unauthorized dumping of larger household items, vehicles, and various construction and industrial materials. Structural features adjacent to the project area include the self-storage facility in the central-west section where there is also a cell tower; a parking area up-slope and above the commercial development at the southeast end; an abandoned bridge with concrete stanchions across Spinning Mill Brook to the east; and an alignment of septic fields in the very southeast part of the project property across the brook and outside the proposed project area.

Recommendations

Background research indicates no further archaeological evaluation is warranted for the project area. Based on various ecological factors such as surface slope and soil types, the area contains a very low statistical probability for containing prehistoric sites. Similarly, land records and historic maps do not reveal any substantial developments on the property or immediate surroundings. In addition, informant interviews and the pedestrian surface survey revealed that the property has undergone severe landscape modifications in the past, particularly the stripping of topsoil and exposure of bedrock at the top of the hill that has also been artificially levelled. Given these considerations, it is recommended that no further archaeological conservation efforts are required with respect to the planned development.

CHAPTER 2: BACKGROUND

Environmental Setting

Location

The project property is located in the Town of Guilford, New Haven County, Connecticut (Figure 1). The project setting is in the western part of the Eastern Coastal ecoregion (Figure 2). The project area lies in the western part of Guilford, bordered by the Boston Post Road (U.S. Route 1) on the southwest, the south-bound off-ramp of Interstate 95 - Exit 57 on the southeast, Spinning Mill Brook on the northeast, and Joan Drive on the northwest (Figure 3). The project area is roughly oval in shape, although a narrow triangular piece of land extends to the southeast along the northern edge of the off-ramp. The whole property consists of three (3) lots, all appearing on Map #79 of the Guilford Tax Assessor's Office. Lot 35 is the smallest, at 2.4 acres, and lies along the northeast side of Route 1 (Figure 4). The smaller lot currently contains a commercial store, where a self-storage facility and telecommunications cellular tower are also located. Lot 34 extends southeast from Joan Drive and encompasses the smaller lot on three sides, measuring about 12 acres. Lot 36A lies further to the southeast and measures 11.56 acres, bordered by a thin strip of land to the southeast along the off-ramp where several commercial stores are located. The development project area is to be contained within the high hill that comprises the bulk of the property. To the nearest ten meters, the Universal Transverse Mercator (UTM) coordinates (Zone 18) for the peak of the hill are: 691,900 / 4574,390 (Figure 5).

Climate

The climate of the Eastern Coastal ecoregion of Connecticut is strongly influenced by its proximity to the Long Island Sound and Atlantic Ocean (Kirk 1939; Brumbach 1965; Dowhan and Craig 1976; Reynolds 1979). The project region typically experiences 47 inches (~120 centimeters) of precipitation per year. Average annual snowfall is about 33 inches. Precipitation amounts are rather evenly distributed throughout the year. Principal storm tracks include the Colorado and South Atlantic lows, and the Plateau and Rocky Mountain, Alberta, and Hudson Bay highs. While the predominant winds are from the southwest, northwest winds are frequent during winter. Normal temperatures vary between approximately 31 F in winter (22 F normal minimum) to 71 F (81 F normal maximum) in summer, with an average year-round temperature at about 50 F. Average relative humidity for the area is about 60-75 percent. These conditions result in a relatively humid environment throughout the year with considerable seasonality in terms of temperature. This limits the growing season for most crops between the middle of April and the end of October (about 195 days), the average times for last and first killing frosts for the region. The temperate climate in general provides for an abundance of resources that are rather evenly distributed given the moderate topographic relief of the region, but which also vary cyclically based on a marked seasonality. Seasonality is known to have had a greater bearing than large scale spatial factors on prehistoric and early historic resource procurement strategies in regions with a relatively even distribution of wild resources (Butzer 1982), such as that of Connecticut.

Figure 1: Map of Connecticut

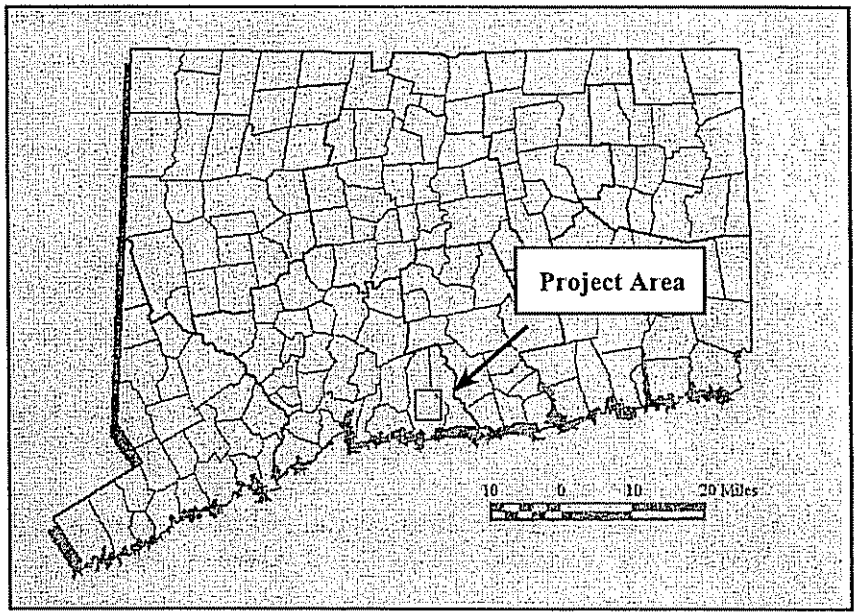

Figure 1: Map of Connecticut showing New Haven County and the project location.

Figure 2: Ecoregions of Connecticut

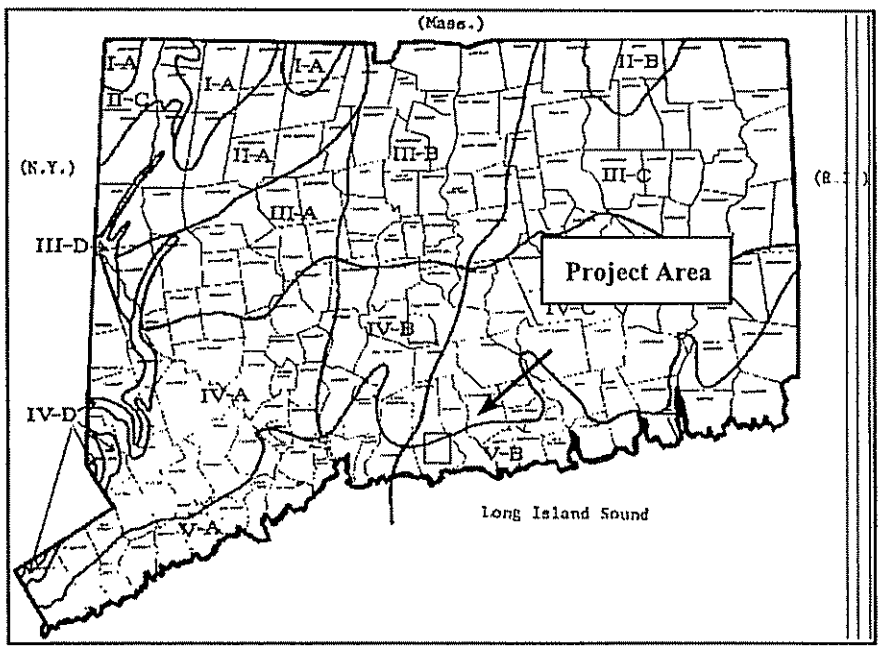

Figure 2: Project area is located in the Eastern Coatal ecoregion ecoregion (V-B) of Connecticut. From Dowhan and Craig 1976:26.

Figure 3: Map of the Guilford Area

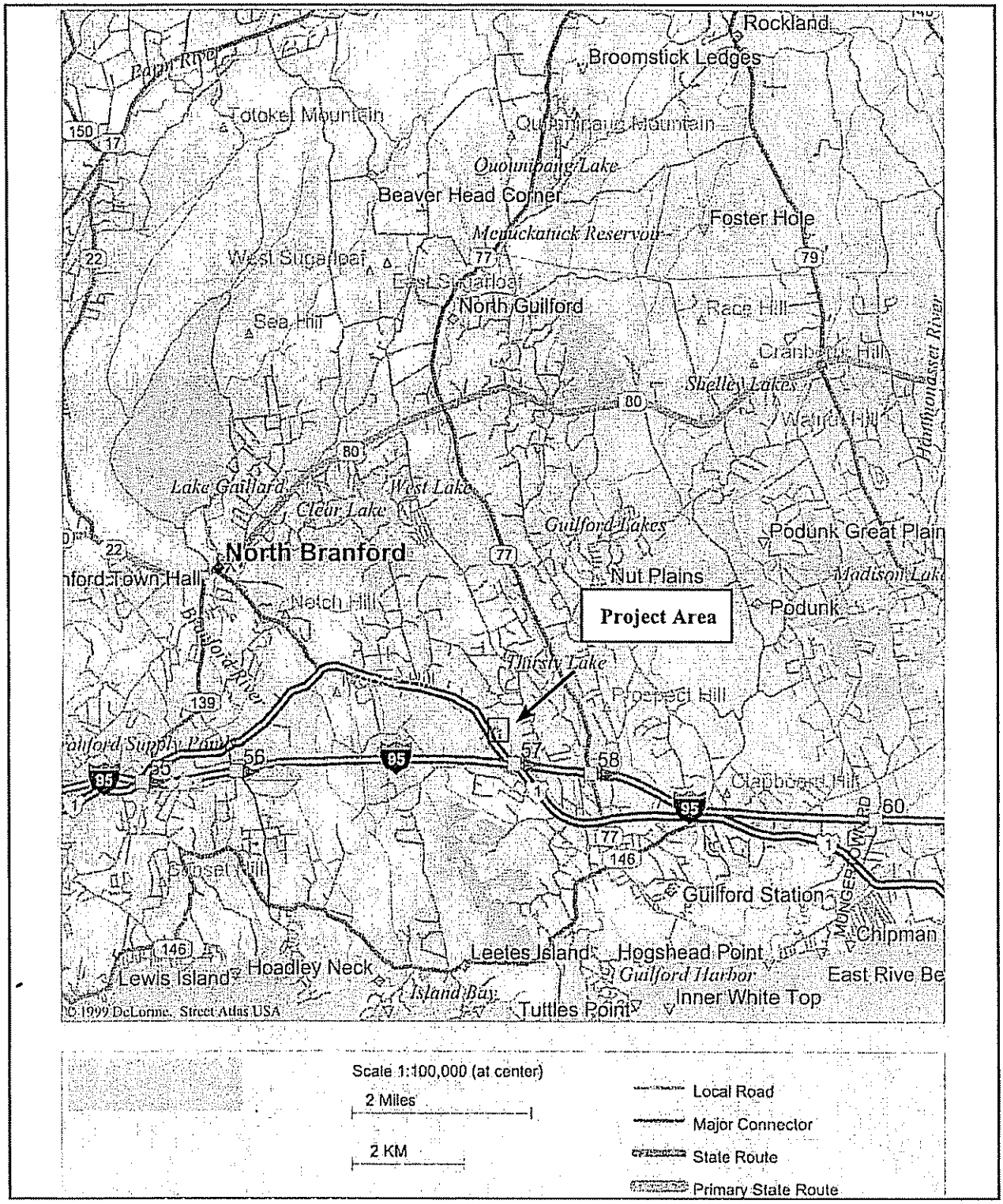

Figure 4: Map of the Project Area

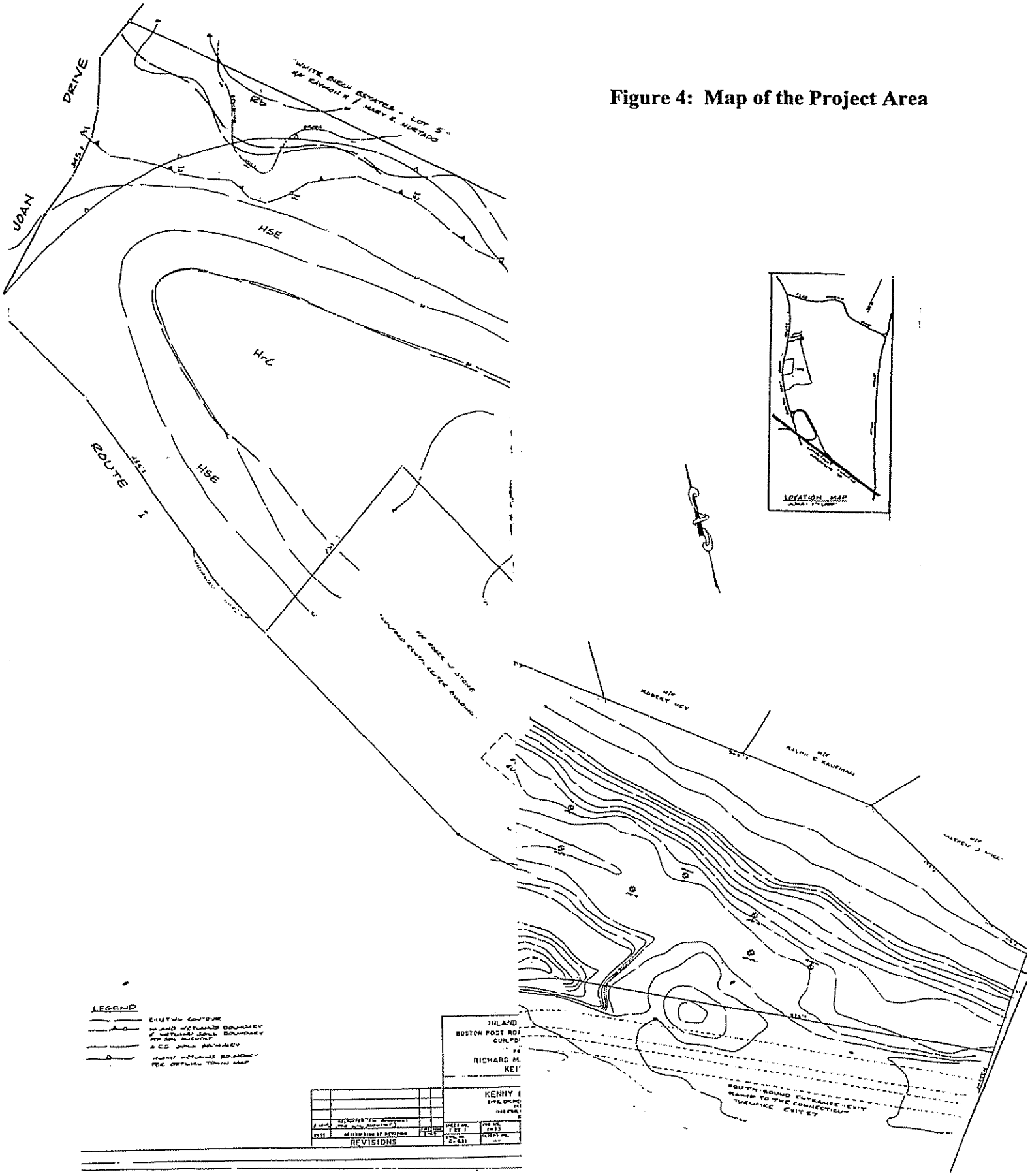

Figure 4: From wetland maps provided by

Figure 5: USGS 7.5' Topographic Map, Guilford Quadrangle

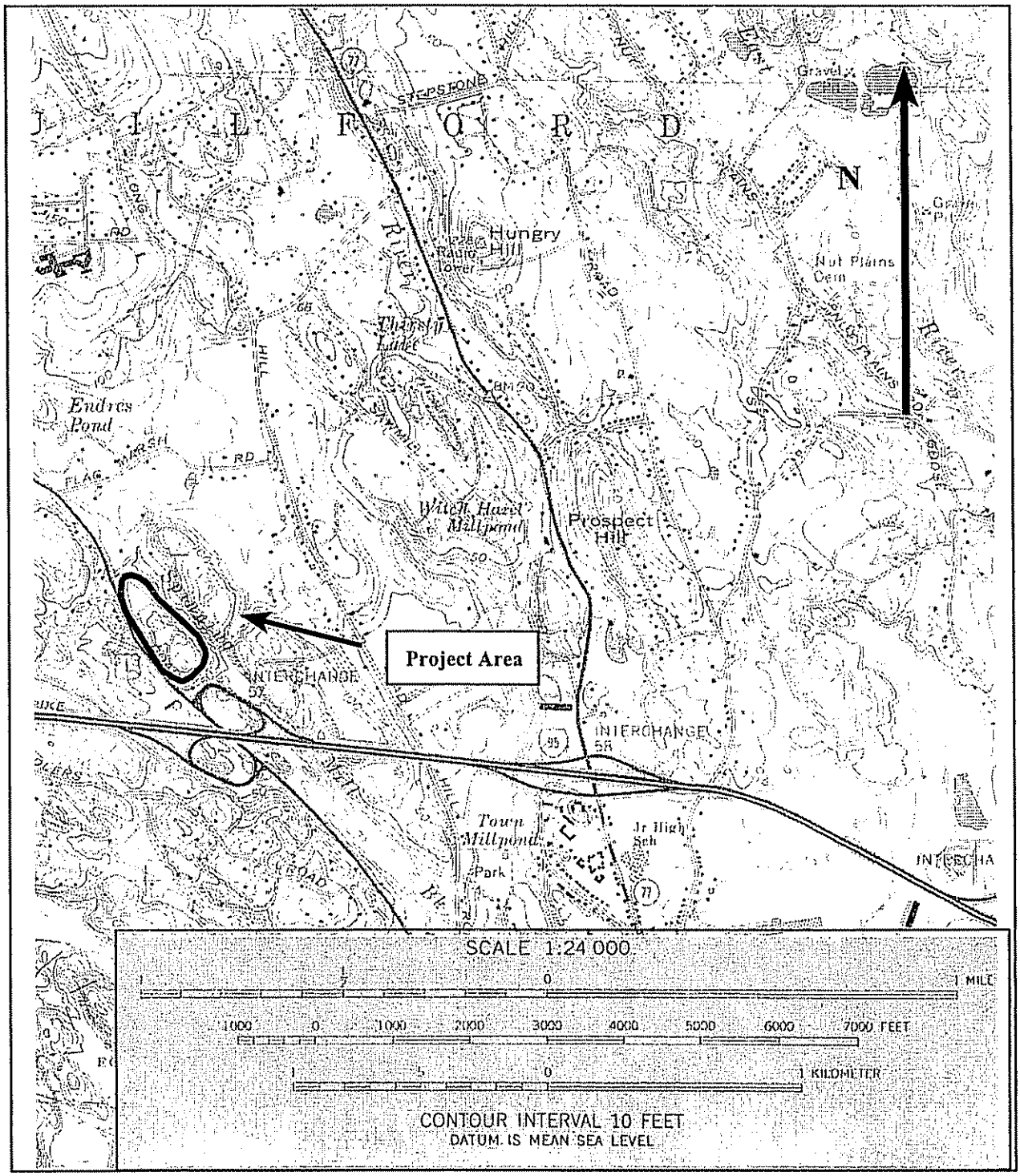

Figure 5: From USGS 1984 .

Geology

The project region lies towards the western end of the Avalonian Anticlinorium (Avalonian Terrane), a Precambrian mass which was originally part of the African plate. The Avalonian Terrane is separated from the Connecticut Valley Synclinorium to the west by the Eastern Border Fault of the Hartford Basin about five miles to the west, and lies unconformably to the south of the Bronson Hill Anticlinorium (Rodgers 1985). No major faults exist in the direct vicinity of the project property, although the area exhibits considerable topographic relief, largely attributed to the steeply inclined and highly foliated bedrock formations in the area. Bedrock exposures in the vicinity of the project property indicate a northwest strike for bedding planes with dips on the order of 50 degrees or greater to the northeast (Figure 6). The project area itself is contained within a unit of Monson Gneiss (Zw). The Monson formation is described by Rodgers (1985) as a light to dark gray, variably textured gneiss principally composed of plagioclase, quartz, and biotite, with minor amounts of hornblende, microcline, and amphibolite. The steeply inclined bedding of this relatively resilient formation would be conducive to the occurrence of prehistoric rockshelters or exposures for early historic quarrying efforts.

Geomorphology

Although the shape of the landscape in the region surrounding the project property is largely dictated by the metamorphic folding of bedrock formations, other aspects include glacial features. Various landscapes are created depending upon the distribution and density of rock and the shape and melting nature of the incorporating glacier (Tarbuck and Lutgens 1990), as evident in the surrounding region which contains a wide variety of glacial till, moraines, and meltwater features. Most of the glacial geomorphology of the area surrounding the project property is characterized by thin glacial till deposits on hill slopes and ridges, deriving from the last or late Wisconsinan glaciation (Stone et al. 1992). Other prominent glacial landforms of the region include broad, glacially deposited meltwater features such as those found along the nearby West River drainage just to the east, and large moraines such as the one found further to the east near the Madison border and just west of the East River. Broad, post-Pleistocene alluvial terraces are generally lacking in the area, although minor terraces can be found along the West and East Rivers. Prominent bodies of swamp sediments occur near the mouths of the coastal drainages, including two areas between Leete's Island and Sachem's Head a couple of miles to the south.

The geomorphology of the project property itself can be broadly characterized as hill ridge and slope with locally derived glacial till (Flint 1971) (Figure 7). The project area lies on a relatively isolated, elongated hill that is flanked by Route 1 and Spinning Mill Brook. The northwest end of the hill descends more gently before terminating at Joan Drive, while the southeast end terminates abruptly. Flint (1971) indicates prominent artificial fill components along Route 1 and the interstate in the vicinity of the project property, while the prominence of the hill that constitutes the bulk of the project property could only contain very thin deposits of glacial till. Till deposits on some of the more durable formations of the region tend to be thin or non-existent as most till was derived from the bedrock formations which lay directly beneath them or a short distance north, and since steeper hills derived from more durable formations are more readily subject to surface erosion. Most till of the region is subangular, indicating little transport distance before deposition. Thus unlike areas whose landscape is affected by glacial meltwater and post-glacial deposition, the geomorphology of the project property has consistently

retained its form in recent geological history with the exception of minor traces of glacial till. The hill attains a height of more than 120 feet above mean sea level (amsl), with the slopes descending to roughly 50 feet amsl along the adjacent road and stream.

While the hill slope setting of the project property has been statistically shown to have been occupied less extensively by prehistoric inhabitants of the region, these settings frequently served as hunting and gathering grounds and as locations for short-term, seasonally restricted occupations, particularly during winter in the case of more secluded valleys. Isolated hills such as that supporting the project area were also targeted by prehistoric occupants of the region as raised vantage points for surrounding areas dominated by lower lying glacial outwash plains and perennial streams.

Pedology

The soils of the region can be broadly classified as Gray-Brown Podzolic soils. The project property is contained within an area dominated by the Holyoke-Rock outcrop soil association, characterized by gently sloping to very steep, somewhat excessively drained and well drained loamy soils and rock outcrop (Reynolds 1979). This soil complex is strongly associated with glacial till uplands where the topographic intricacy of the landscape is greatly dictated by the metamorphic folding and foliation of underlying bedrock. There are several main specific soil types within the project property, including those of the Hollis series (HSE, HrC) and Charlton series (CrC) (Figure 8).

The Hollis soil types (HrC, HSE) usually have a very dark brown fine sandy loam surface layer about three inches thick, followed by a subsoil of dark brown fine sandy loam about 11 inches thick before bedrock is reached. The Hollis soils vary principally with respect to slope and/or percentage of rock outcrop, with all Hollis soils occurring in highly rocky settings. The first unit (HrC) principally occurs on the hill ridge, while the second unit (HSE) occurs on the very steep hill flanks. These excessively drained soils also have a high water capacity and relatively fast permeability, and are fairly acidic without treatment.

The Charlton unit (CrC) occurs on the narrow section of land to the southeast of the principal project area. Charlton fine sandy loam is a well drained soil that typically has a dark brown fine sandy loam surface layer about two inches thick, followed by a two-foot thick subsoil consisting of brown to yellowish brown to light olive brown fine sandy loam, and a substratum of grayish brown gravelly fine sandy loam containing thin firm lenses in depths up to five feet. The Charlton unit is separated from the Hollis units by the stream which is supported by a linear, poorly drained wetland unit of Raypol silt loam (Rb).

The soil types of the project property are generally very rocky. Thus any historic agricultural use of the property in the past was likely limited to pasturing livestock or simply left open or uncleared to provide wood for fuel. The steeper slopes of the project area and rockiness of the soils would have been particularly prohibitive for any long-term prehistoric use or intensive agricultural efforts.

Figure 6: CGNHS Bedrock Geological Map of Connecticut

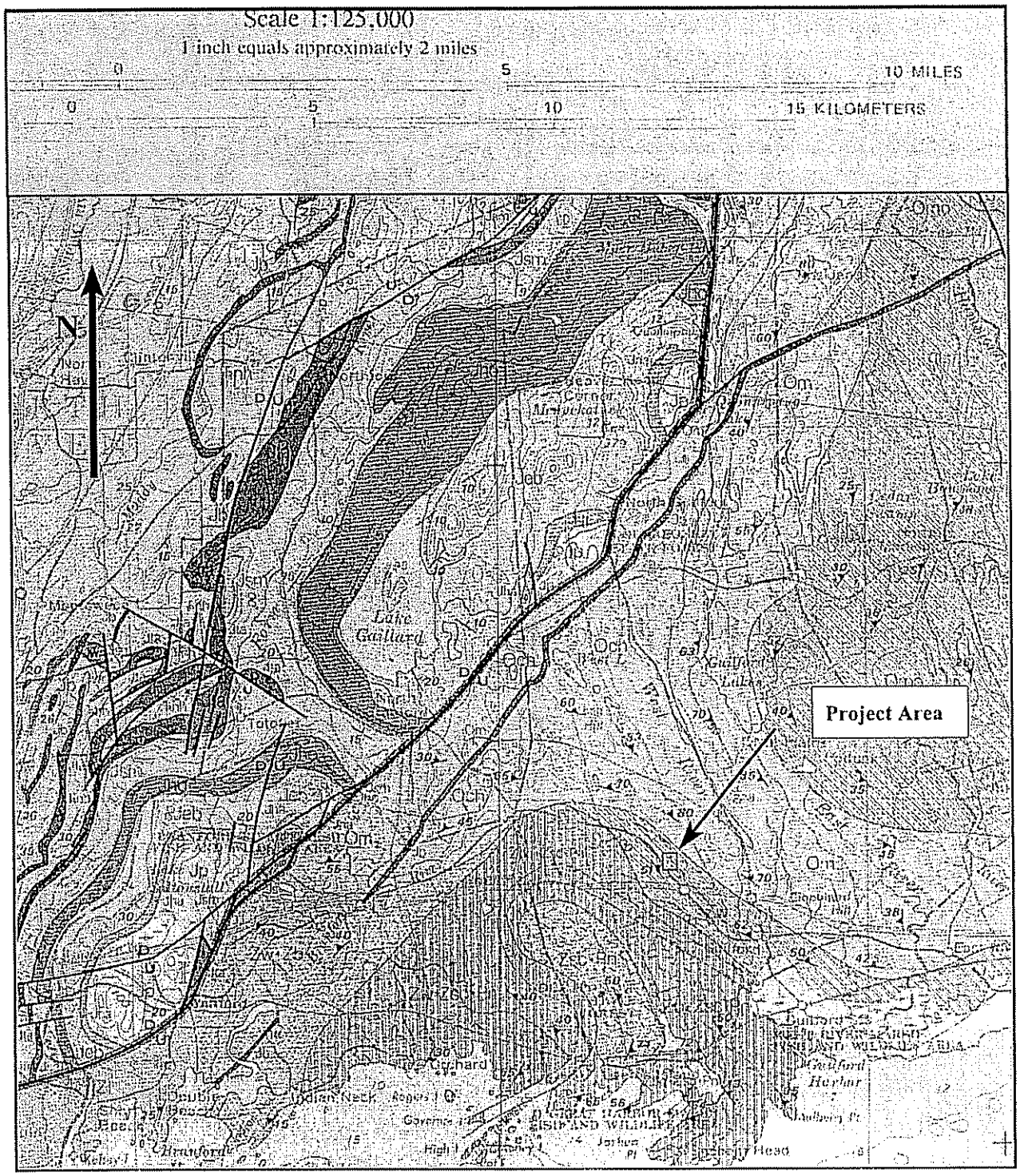

Figure 6: From Rodgers 1985.

Figure 7: USGS 7.5' Surficial Geology Map, Guilford Quadrangle

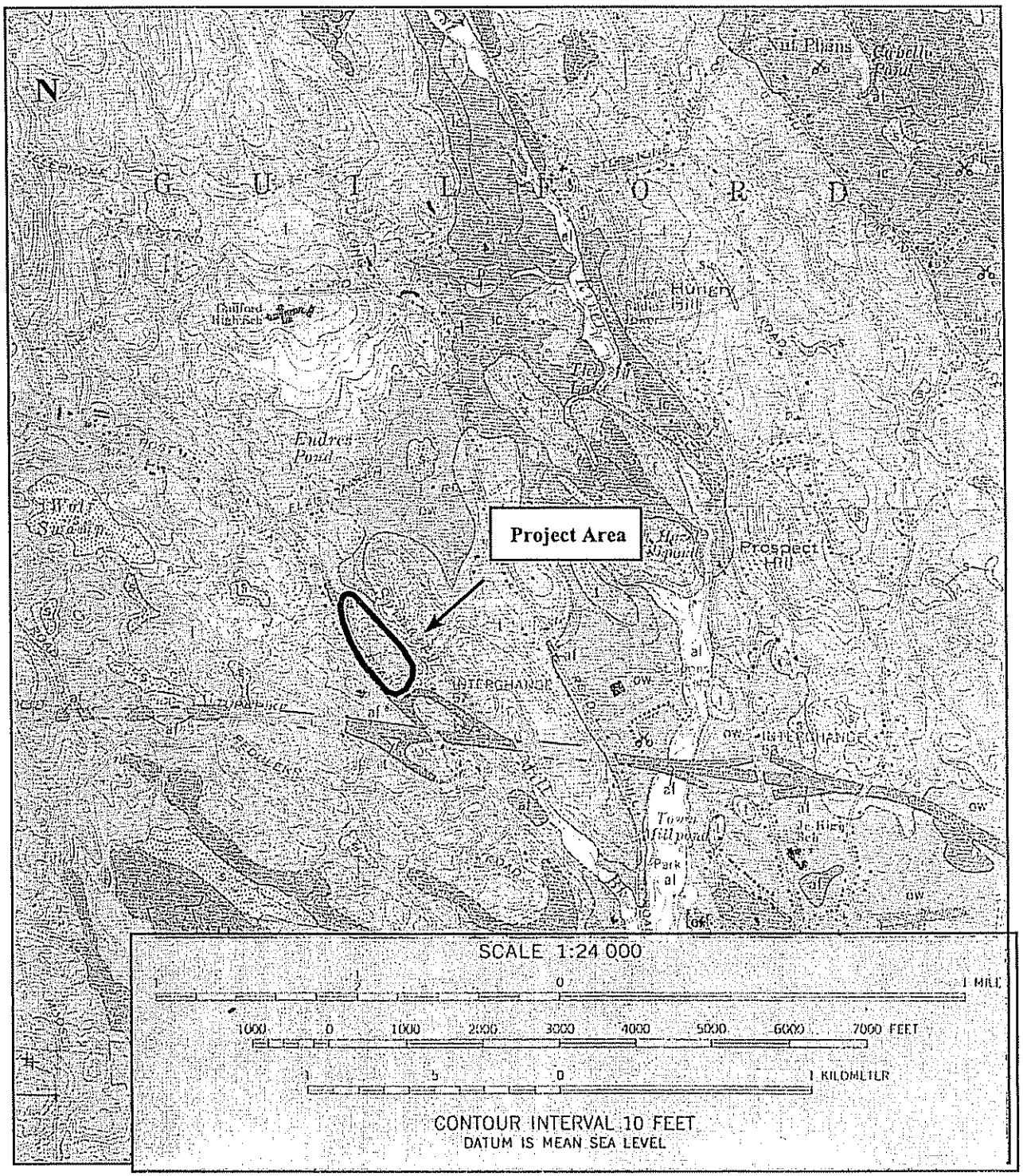

Figure 7: From Flint 1971.

Figure 8: USDA SCS Soil Map, New Haven County, Sheet 62

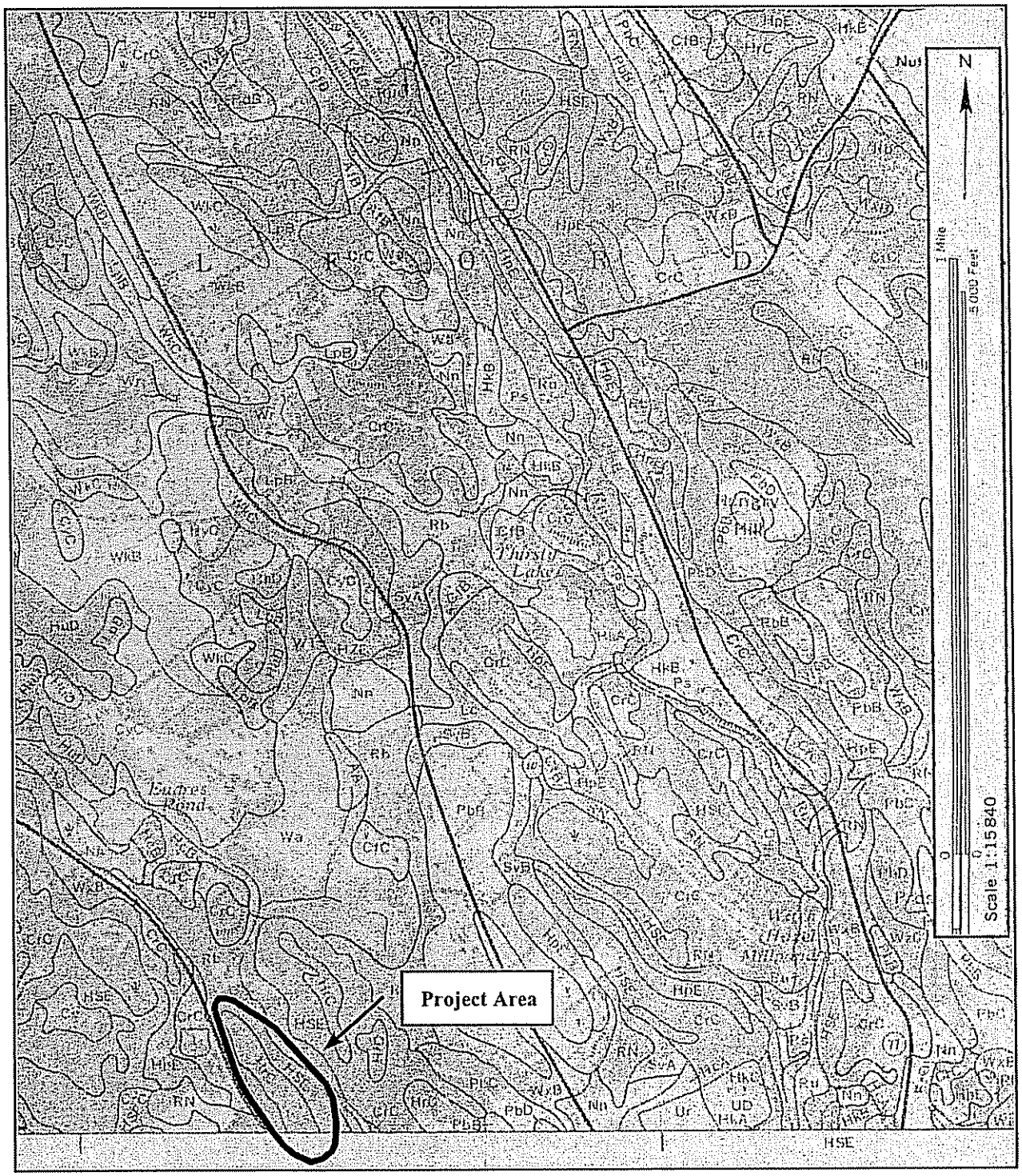

Figure 8: From Reynolds 1979.

Figure 9: CGNHS Drainage Basin Map of Connecticut

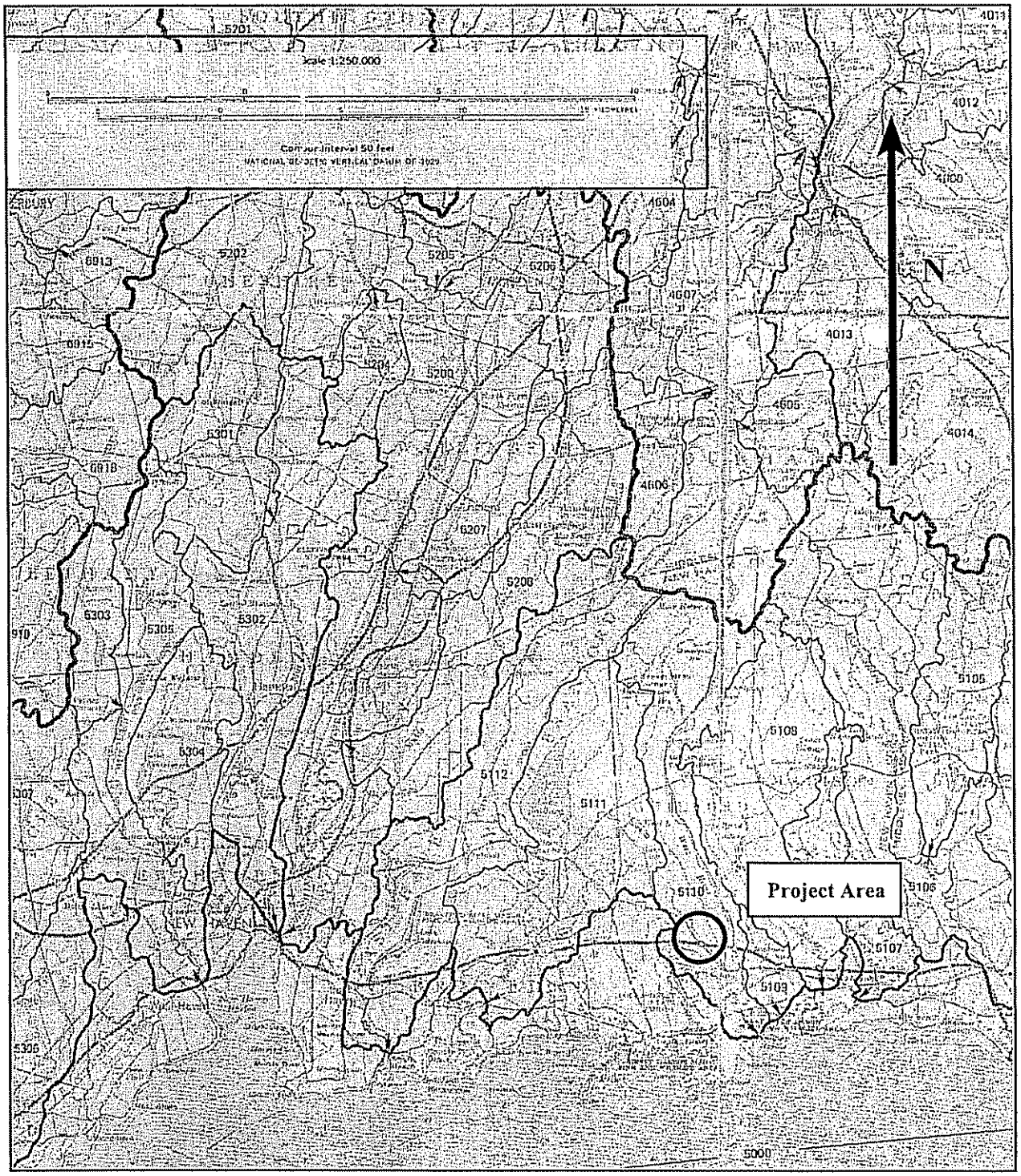

Figure 9: From McElroy 1991.

Hydrology

The drainage patterns of southern Connecticut and the region encompassing the project property were mostly established before the onset of the last glaciation (Flint 1930). In the region surrounding the project area, the usual trend of steams is to the south-southeast, somewhat in line with the strike of many bedrock formations, indicating that the glacial history of the area had only a partial effect on general drainage patterns. Thus they appear to be largely dictated by the strike of the faults and folds of the bedrock formations exposed at the surface, where they are subject to differential weathering and erosion depending on the resilience of the constituent beds. Some streamlining as indicated by glacial scouring and north-northwest to south-southeast orientation of drumlins does indicate glacial influence of topography and drainage patterns, however (Flint 1971:9). On a much smaller scale, the glacial outwash which occupies many of the local drainages has affected the precise course of the streams.

The project area lies within the West River (#5110) drainage basin (McElroy 1991) (Figure 9). The central course of the West River lies about one mile to the east of the project area. The dominant body of water associated with the project property is Spinning Mill Brook, a perennial stream coursing southeast along the northeast border of the hill supporting the project area. The smaller stream forms a confluence with the West River about one mile southeast of the project property. The course of the stream is slightly constricted in the southeast part of the property where a small pond is formed. Partly dammed by earth and stones, the constriction occurs where an unfinished concrete and steel pedestrian bridge crosses the drainage. The flow of the stream is great enough to have provided hydrological power to early historic inhabitants of the area, as its name implies, and certainly would have been an attractive resource to Native American occupants of the region.

Flora

The Eastern Coastal ecoregion is dominated by coastal hardwoods, including various oaks and hickories, tulip poplar, sassafras, and hemlock (Dowhan and Craig 1976:40). Historically, the Guilford area contained large quantities of cedar, white pine, and chestnut as well (Steiner 1897:179). Briers and various shrubs and vines form thickets in open or disturbed areas. Most of the project area is open today with a low grass and scrub growth cover on the hill top, and a secondary wooded cover along the steeper hill slopes. Hydrophytes occupy the Spinning Mill Brook drainage. Most crops of the broader region are grown between the middle of April and the end of October, although the soils on the project property are ill-suited for crops. Past historic agricultural use of the property would have been likely limited to pasturing, or even left wooded for fuel.

Fauna

Typical mammals for the project region include deer, raccoon, rabbit, skunk, opossum, chipmunk, squirrel, fox, and woodchuck (Reynolds 1979), and formerly wildcats and wolves (Steiner 1897:236-237). Birds include songbirds, sparrows, crow, woodcock, thrushes, woodpeckers, ruffed grouse, hawks, and the barn owl, as well as ducks, geese, and other waterfowl (Dowhan and Craig 1976; Reynolds 1979). The soil units represented on the property are all rated poor for supporting woodland wildlife (Reynolds 1979), although the stream would have been attractive to hunted game and early historic domesticates.

Cultural Setting

Regional Prehistory

The prehistory of the project region and New England in general can be broadly divided into periods reflecting changes in environment, Native American subsistence and settlement patterns, and the material culture which is preserved in the archaeological record (Table 1). Although it remains controversial today, the conservative estimates for the first occupations of North America are about 18,000 to 15,000 years ago, just after the maximum extent of the last glaciation and the broadest extent of the Bering land bridge (Kehoe 1981:7; Parker 1987:4; Jennings 1989:52). Southern Connecticut itself remained glaciated until about 14,000 B.P. (Snow 1980:103; Gordon 1983:71; Parker 1987:5; McWeeney 1994:181).

Paleo-Indian

The Paleo-Indian period is documented in Connecticut after 12,000 years ago and extends to roughly 9,500 B.P. (Swigart 1974; Snow 1980:101; Lavin 1984:7; Moeller 1984). This was a period of climatic amelioration from full glacial conditions, and a rise in sea levels which fell short of inundating the continental shelf. It was during this time that tundra vegetation was replaced by patches of boreal forests dominated by spruce trees (Snow 1980:114; Parker 1987:5-6), and eventually white pine and several pioneering deciduous genera (McWeeney 1994:182). Early in the period, the environment was conducive to the existence of large herbivores and a low population density of humans who procured these animals as a major subsistence resource, although warming temperatures and denser forests contributed to their extinction. The projected social and settlement patterns are those of small bands of semi-nomadic or restricted wandering people who hunted mammoth, mastodon, bison, elk, caribou, musk ox, and several smaller mammals (Ritchie 1969:10-11; Snow 1980:117-120). Episodes of sparse vegetation during this period encouraged the use of high lookout points over hollows and larger valleys by people in pursuit of large game. The southern part of New England had an earlier recovery from glacial conditions when compared to areas to the north, however, with a higher density of vegetation that might have precluded Paleo-Indians of Connecticut from focussing heavily on the larger mammals (McWeeney 1994:182).

The cultural material associated with this period includes large to medium-sized, fluted projectile points (cf. Clovis), in addition to knives, drills, pieces esquillees and gravers, scrapers, perforators, awls, abraders, spokeshaves, retouched pieces, utilized flakes, and hammerstones (Wilbur 1978:5; Snow 1980:122-127; Moeller 1980). Although numerous finds from this period have been found in Connecticut, only a few, small *in situ* sites exist throughout the state. Finds tend to be located near very large streams in the lower Connecticut River Valley, and in rockshelters of other regions (e.g. McBride 1981). A survey performed by the Connecticut Office of State Archaeology and the Archaeological Society of Connecticut resulted in the documentation of 53 Paleo-Indian "find spots" in Connecticut (Bellantoni and Jordan 1995).

Table 1: Regional Prehistoric Chronology

Paleo-Indian Period (12,000-9,500 B.P.)

Environment: Dry and very cold, tundra herbaceous plants and sparse spruce forests shifting to pine forests.
Settlement: Semi-nomadic, restricted wandering.
Subsistence: Very large grazing herbivores and smaller mammals.
Material: Large fluted points (cf. Clovis), knives, drills, scrapers, awls, abraders, perforators, spokeshaves, and hammerstones.
Ritual: Unknown.

Early Archaic Period (9,500-7,500 B.P.)

Environment: Cold, dense pine and deciduous forests.
Settlement: Central-based wandering.
Subsistence: Large foraging herbivores and smaller mammals.
Material: Atlatl, stemmed and bifurcated (Stanly, cf. Kanawha and Lecroy) points, choppers, anvil stones, and others from earlier periods.
Ritual: Unknown.

Middle Archaic Period (7,500-6,000 B.P.)

Environment: Cool, deciduous hardwoods and pine.
Settlement: Central-based, seasonally circulating.
Subsistence: Foraging mammals, fish, and shellfish.
Material: Contracting stemmed points (Neville, Stark, and Merrimac), semi-lunar groundstone knives, banner stones, net plummets, gouges, denticulates, grooved axes, percussed celts and adzes, and others from earlier periods.
Ritual: Unknown.

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

Environment: Moderate, deciduous hardwoods.
Settlement: Central-based or semi-sedentary, seasonally circulating and radiating.
Subsistence: Foraging mammals (deer), small mammals, turtles, birds, fish, shellfish, berries, nuts, seeds.
Material: Groundstone manos, mortars, pestles, and bowls, stone pipes, bone tools, perforated weights, decorative gorgets, corner-notched (Vosburg, Brewerton, and Vestal), side-notched (Otter Creek, Brewerton, and Normanskill), narrow-stemmed (Dustin, Lamoka, Squibnocket, and Wading River), and triangular points (Squibnocket, Brewerton, and Beekman), fish weirs and harpoons, and others from previous periods.
Ritual: Cremation burials with utilitarian funerary objects for limited groups, suggesting possible access to restricted resources (e.g. transportation routes).

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

Environment: Moderate, deciduous hardwoods.

Settlement: Semi-sedentary, short-term radiating, long-term seasonally circulating.

Subsistence: Foraging mammals (deer), small mammals, fish, shellfish, turtles, birds, berries, nuts, seeds.

Material: Susquehanna corner-notched points, side-notched and large stemmed points, steatite bowls, canoes, Vinette I pottery, and others from previous periods.

Ritual: Elaborate secondary cremation burials containing high proportions of highly stylized artifacts of non-local material in specialized cemetery sites for limited groups with access to restricted resources (e.g. steatite, transportation routes), suggesting a stratified society and semi-sedentism for some groups.

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

Environment: Cool, deciduous hardwood trees.

Settlement: Central-based, seasonally circulating.

Subsistence: Foraging mammals (deer), small mammals, fish, shellfish, turtles, birds.

Material: Bow and arrow, Early Windsor cord-marked and Linear Dentate ceramics, stemmed (Adena-Rossville) and side-notched (Meadowood and Fulton) points, Steubenville points, some exotic Adena material, and others from previous periods.

Ritual: Combination of cremation burials and primary inhumations, often in habitation settings, suggesting some latent retention of class distinctions during a period of declining ceremonialism and undifferentiated control over critical resources.

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

Environment: Moderate, deciduous hardwood trees.

Settlement: Semi-sedentary, short-term radiating, long-term seasonally circulating.

Subsistence: Agriculture (squash, beans, corn, sunflower, tobacco), foraging mammals (deer), small mammals, fish, shellfish, turtles, birds, berries, and nuts.

Material: Groundstone hoes, cylindrical pestles, many ceramic styles (Rocker Dentate, Windsor Brushed, Sebonac Stamped, Hollister Stamped, Selden Island, and Windsor Plain), projectile points (Snyders corner-notched, Long Bay and Port Maitland, Rossville stemmed, Greene), and others from previous periods.

Ritual: Unknown (not yet distinguished from the Late Woodland).

Late Woodland Period (1,000-1,600 A.D.)

Environment: Moderate, deciduous hardwood trees.

Settlement: Semi-sedentary, short-term radiating, long-term seasonally circulating.

Subsistence: Agriculture (squash, beans, corn, sunflower, tobacco, Jerusalem artichoke), foraging mammals (deer), small mammals, fish, shellfish, turtles, birds, berries, nuts, and tubers.

Material: Wigwam homes, Jack's Reef, and Madison and Levanna triangular points, Late Windsor and East River ceramics, and others from previous periods.

Ritual: Primary inhumations in habitation sites, suggesting egalitarian society.

Early Archaic

The Early Archaic period lasted from approximately 9,500 B.P. to 7,500 B.P. (Snow 1980:159; Lavin 1984:9; Moeller 1984). Sea levels and temperatures continued to rise during this period as denser stands of forests dominated by pine and various deciduous species replaced the vegetation of the former period (Davis 1969:418-419; Snow 1980:114; Parker 1987:9; McWeeney 1994:184-185). This environmental change was rapid and caused a major shift in the animals it supported, including deer, moose, other small to medium-sized mammals, migratory birds, fish, and shellfish. The material culture changed along with the environmental conditions to include the atlatl and smaller stemmed and bifurcated projectile points (Stanly, cf. Kanawha and Lecroy) for procuring smaller, faster game in more closed settings (Wilbur 1978:6-7). The expanded tool set included choppers and anvil stones. Settlement patterns were probably becoming more territorialized towards a central-based wandering character (Snow 1980:171). The Early Archaic period is poorly represented in Connecticut and the lower coastal river valleys, probably resulting from a combined effect of low population densities in response to rapidly changing environmental conditions, as well as site location and preservation factors (Snow 1980:168; McBride 1981; McBride and Dewar 1981:45; Lavin 1984:9; McWeeney 1986).

Middle Archaic

The Middle Archaic period extended from approximately 7,500 B.P. to 6,000 B.P. (Snow 1980:173; Lavin 1984:9; McBride 1984). It was by the end of this period of increased warming that sea levels and coastal configurations had stabilized and approached their present conditions (Kehoe 1981:211; Gordon 1983:82; Parker 1987:9). The period is marked by the establishment of forests with increasing proportions of deciduous hardwoods in relation to the pine predecessors in Connecticut (Davis 1969; Snow 1980:114). The material culture included square or contracting-stemmed points (Neville, Stark, and Merrimac), semi-lunar groundstone knives, ground and winged banner stones for atlatls, plummets for nets, gouges, denticulates, perforators, percussed celts and adzes and grooved axes for woodworking (Snow 1980:183-184), as well as tools used in previous periods. This more extensive range of material culture indicates a broader subsistence base than in previous periods, including greater fish and shellfish procurement (Wilbur 1978:8; Snow 1980:178-182) which was associated with the stabilization of sea levels towards the end of the period. The increased breadth of subsistence resources had the effect of increasing scheduling efforts and may have caused settlement patterns to take on more of a central-based or seasonally circulating pattern with bands joining and dispersing on a seasonal basis (Snow 1980:183). Sites found in the lower Connecticut River Valley region suggest that a wider range of environments and associated site types were exploited, including both large and special task sites in upland areas (McBride 1981; 1984:56). This regional pattern may confirm the suggested settlement pattern of central-based, seasonally circulating or restricted circulating groups of people supported by logistical procurement sites throughout the state. Middle Archaic sites are fairly rare in Connecticut, again a combined product of rising sea levels and poor site preservation.

Late Archaic

The Late Archaic period ranged from approximately 6,000 B.P. to 3,700 B.P. (Snow 1980:187; Lavin 1984:11; McBride 1984; Pfeiffer 1984). This period is marked by a warm-dry maximum evident from pollen cores in the region (Davis 1969:414; Ogden 1977). Hardwood, oak-dominated forests very similar in character to ones established today covered most of Connecticut by the Late Archaic (Parker 1987:10). The Late Archaic in Connecticut has been divided into two traditions: the Laurentian and the Narrow Point (Lavin 1984:11), with the former perhaps being distributed more in the interior. The Laurentian tradition is defined by wider-bladed, notched and eared triangular points, and ground slate points and ulus, while the Narrow Point tradition includes smaller, thicker, and narrower points. The tool kit and general material culture became even more expanded during this period, with the advent of ground stone manos, nut mortars, pestles, and bowls, as well as stone pipes, bone tools, corner-notched (Vosburg, Brewerton, and Vestal), side-notched (Otter Creek, Brewerton, Normanskill), smaller narrow-stemmed (Dustin, Lamoka, Squibnocket, and Wading River), and triangular points (Squibnocket, Brewerton, and Beekman), grooved and perforated weights, fish weirs and harpoons, and decorative gorgets (Wilbur 1978:15-24; Snow 1980:228-231). The groundstone material has been inferred as being associated with an increased vegetable diet that consisted of berries, nuts, and seeds (Snow 1980:231; Lavin 1984:13), including acorn, butternut, chestnut, walnut, hickory, bayberry, blackberry, goose foot, cranberry, partridge berry, service berry, strawberry, and swamp current (Cruson 1991:29). Deer continued to be the predominant meat source, although animal remains recovered from archaeological sites in the region include black bear, raccoon, woodchuck, rabbit, otter, gray squirrel, red fox, gray fox, wolf, wild turkey, grouse, pigeon, migratory fowl, and anadromous and freshwater fish and shellfish (Cruson 1991:28-29). Various sea mammals and fish were also procured along the coast.

The increasing breadth of the subsistence base and material culture was in turn associated with a central-based settlement pattern in which a restricted range of seasonally scheduled and used areas were exploited in a more semi-sedentary fashion than previously (Lavin 1984:13; Dincauze 1990:25). Sites in the lower Connecticut River Valley suggest that the larger rivers served more as long-term bases within a central-based circulating system than in the Middle Archaic (McBride 1981; McBride and Dewar 1981:48). The interior uplands of Connecticut may have supported a relatively independent set of seasonally circulating groups which used larger wetlands as long-term bases (Wadleigh 1981). Mortuary practices of the time suggest some sedentism for certain groups of people who were buried in specialized secondary cremation cemeteries and who may have had some control over restricted resources (e.g. riparian transportation routes) (Walwer 1996). Although the cremation sites largely include utilitarian funerary objects, some contain non-local materials which suggest trade association with cultures to the west of Connecticut (Walwer 1996).

Terminal Archaic

The Terminal Archaic period extended from approximately 3,700 B.P. to 2,700 B.P., as defined by the Susquehanna and Small-Stemmed traditions (Swigart 1974; Snow 1980:235; Lavin 1984:14; Pfeiffer 1984; Pagoulatos 1988; Cruson 1991). Steatite, or soapstone, was a frequently used material by this time, and could be fashioned into bowls and other objects. The

mass, permanency, and labor intensiveness of creating these heavy items have led to the inference of more sedentary base camps, especially on large rivers where the development of a canoe technology had become fully established and increased the effective catchment area within which groups of people were gathering resources on a continuous basis. The material culture of the period was very similar to the Late Archaic, with a proliferation of stemmed projectile point types including Snook Kill, Bare Island and Poplar Island stemmed points, Orient Fishtail points, Sylvan and Vestal side-notched points, and Susquehanna corner-notched points. The resource base continued to consist of deer and small mammals, nuts, shellfish, turtles, and birds (Snow 1980:249). The first signs of ceramics (Vinette I pottery) tempered with steatite fragments appeared during this period (Lavin 1984:15; Lavin and Kra 1994:37), and archaeological evidence of trade with other regions becomes more substantial for this time (Pfeiffer 1984:84).

The distribution of sites and site types in the lower Connecticut River Valley during this period suggests that there was a change in settlement to one with fewer, yet larger sites in riverine settings, and associated satellite task-specific sites in the uplands (McBride 1981; McBride and Dewar 1981:49). The implications are less foraging-strategy residential movement and more task-oriented collection activities within a radiating settlement pattern, but probably one in which some degree of seasonal circulation of settlement took place. Pagoulatos (1988) has shown that while sites associated with the Small-Stemmed tradition tend to suggest a more mobile settlement pattern in the interior uplands, sites of the Susquehanna tradition indicate a semi-sedentary collector strategy in major riverine and estuarine environments. At least certain groups exhibited semi-sedentism and some control over restricted resources, as indicated by the elaborate burials of the Terminal Archaic (Walwer 1996). Mortuary practices from the period include secondary cremation interments in formalized cemetery areas, with individual pits containing fragmented utilitarian material from communal cremation areas, as well as highly stylized funerary objects from non-local material (Walwer 1996). The lack of other, less formalized burial types evident in the archaeological record may be a matter of poor preservation, in which case it has been proposed that the cremation cemeteries are representative of a stratified society in which a portion of the people (of the Susquehanna "tradition") were able to generate a surplus economy that supported a semi-sedentary settlement pattern. This surplus may have been generated by the procurement and control over the transportation of steatite from various areas in Connecticut and surrounding territory.

Early Woodland

The Early Woodland period in Connecticut extended from about 2,700 B.P. to 2,000 B.P. (Lavin 1984:17; Juli and McBride 1984; Cruson 1991). A cooling trend during the Early Woodland (Parker 1987:10; Davis 1969:414) is thought to have reduced population sizes and regional ethnic distinction as the hickory nut portion of the resource base was significantly decreased, although the apparent decline in populations may possibly be related to other factors such as the inability to confidently distinguish Early Woodland sites from those of other periods (Filios 1989; Concannon 1993). Climatic deterioration and depopulation are in turn thought to have inhibited the progression towards, and association with, more complex social structures and networks that were developing further to the west and south (Kehoe 1981:215). A proliferation of tobacco pipes may indicate the beginnings of agricultural efforts in the northeast. The Early

Woodland of this region, however, exhibits no direct traces of subsistence crop remains, indicating continuity with previous periods in terms of general subsistence practices (Lavin 1984:18).

Materially, the period is marked by a substantial development of a ceramic technology, with the Early Windsor tradition of pottery being dominant in the Early Woodland of Connecticut (Rouse 1980:68; Lavin 1984:17, 1987). Both Early Windsor cord-marked and Linear Dentate ceramic forms were being produced at this time. Diagnostic projectile points can be developmentally traced to indigenous points of previous periods, consisting of many stemmed forms in addition to Meadowood and Fulton side-notched points, Steubenville points, and Adena-Rossville types, but now may have been used in conjunction with the bow and arrow (Lavin 1984:18). Adena-like boatstones are also found in this period. Although rare contact with the Adena culture is evident throughout assemblages of the period, the Early Woodland in southern New England remained a very gradual transitional period (Snow 1980:279,287; Lavin 1984:19).

A heightened use of ceramics has been erroneously promoted as an automatic indication of increased sedentism in many areas. Instead, central-based camps with restricted seasonal encampments appear to be the dominant settlement pattern (Snow 1980:287). Minimal archaeological evidence from the lower Connecticut River Valley appears to suggest a similar settlement pattern to the Terminal Archaic in which large riverine sites served as central bases with upland seasonal dispersal or specific task sites (McBride 1981; McBride and Dewar 1981:49), but with a lesser degree of sedentism. Interior uplands populations also decreased during the Woodland era, perhaps related to the intensification of agricultural resources along major riverine and coastal areas (Wadleigh 1981:83). The trend towards greater mobility may in part be attributed to the decline in the use of steatite that no longer gave certain groups control over critical and restricted resources, as indicated by the declining ceremonialism of burial sites at the time which were more often located in habitation sites and exhibited combinations of secondary cremation features and primary inhumations (Walwer 1996). This transition in the socio-economics of the region was brought about by the decrease in importance of steatite as ceramics obscured its value for producing durable containers. Partially preserved primary inhumations appear for the first time in the region based on preservation considerations.

Middle Woodland

The Middle Woodland period lasted from about 2,000 B.P. to 1,000 B.P. (Lavin 1984:19; Juli and McBride 1984; Cruson 1991). The climate was returning to the conditions basically witnessed today (Davis 1969:420). It is a period which exhibited considerable continuity with previous periods in terms of both subsistence and material culture. Cylindrical pestles and groundstone hoes are tools diagnostic of the period and reflect developing agricultural efforts, including the cultivation of squash and beans on a seasonally tended basis (Snow 1980:279). Direct evidence for agriculture in the form of preserved vegetal remains, however, does not generally appear until the early Late Woodland (Lavin 1984:21) when corn is thought to have been introduced into the Connecticut River Valley from the upper Susquehanna and Delaware River Valleys (Bendremer and Dewar 1993:386). Projectile point forms from the period include Snyders corner-notched, LongBay and Port Maitland side-notched, Rossville stemmed, and Greene lanceolate types.

A proliferation of ceramic styles was witnessed during the Middle Woodland (Rouse 1980; Lavin 1984:19-20, 1987; Lavin and Kra 1984:37), including Rocker Dentate, Windsor Brushed, Sebonac Stamped, Hollister Stamped, Selden Island, and Windsor Plain types that were all also produced in the Late Woodland, with the exception of the Rocker Dentate. Ceramic forms from the Early Woodland were still being produced as well. Minor traces of the Hopewell cultures to the west are also present in the archaeological record of the period. Site types and distributions in the lower Connecticut River Valley imply that a moderate increase of sedentism with aspects of a radiating settlement pattern took place on large rivers, supported by differentiated upland task sites (McBride 1981; McBride and Dewar 1981:49). This trend may have been supported by the expansion of tidal marshes up the larger rivers (McBride 1992:14).

Late Woodland

The Late Woodland period extended from approximately 1,000 B.P. to 1600 A.D., the time of widespread European contact in the broader region (Snow 1980:307; Kehoe 1981:231; Lavin 1984:21; Feder 1984). A warmer climate and increased employment of large scale agriculture for subsistence in New England were associated with increased population densities, more sedentary settlements, and more permanent living structures and facilities in larger villages. Settlements in Connecticut, however, tended to remain smaller with only small scale agricultural efforts, and as part of a seasonal round in which smaller post-harvest settlements were established in fall, and protected settlements occupied in winter (Guillette 1979:CI5-6; McBride and Bellantoni 1982; Lavin 1984:23; Starna 1990:36-37). Instead of maintaining permanent villages near agricultural plots, aboriginal populations engaged in the slashing and burning of new plots and let old plots lie fallow periodically (Salwen 1983:89). In this area, domestic resources included corn, beans, squash, Jerusalem artichoke, and tobacco (Guillette 1979:CI5; Starna 1990:35). Agriculture was largely maintained by women, with the exception of tobacco (Salwen 1983:89; Starna 1990:36). Deer, small mammals, fish and shellfish, migratory birds, nuts and berries, and other wild foods continued to contribute significantly to the diet (Waters 1965:10-11; Russell 1980). Many of the foods produced were dried and/or smoked and stored in baskets and subterranean holes or trenches.

The increasing diversity of wild estuary resources may have served to increase sedentism in the coastal ecoregions of Connecticut (Lavin 1988:110; Bragdon 1996:67), while agriculture and sedentism may have been even more prominent along the larger river bottoms (Bragdon 1996:71). Late Woodland settlement patterns of groups in the uplands interior ecozones of Connecticut may have included the highest degree of mobility, while many upland sites from the central lowlands represent task-specific sites associated with larger settlements along the Connecticut River (McBride 1992:16). House structures consisted of wigwams or dome-shaped wooden pole frameworks lashed and covered with hides or woven mats, and clothing was made from animal hides (Guillette 1979:CI7-8; Starna 1990:37-38). Pottery for the period is defined as the Late Windsor tradition in Connecticut (Rouse 1980:68; Lavin 1984:22, 1987). Most of the ceramic forms of the Middle Woodland were still being produced, in addition to the newer Niantic Stamped and Hackney Pond forms. Ceramics of the East River tradition also appear in the area during the Late Woodland, having originated and been concentrated in the New York area (Rouse 1980; Wiegand 1987; Lavin 1987). The period exhibits some continuity in terms of projectile point forms, although the Jack's Reef, Madison triangular, and Levanna points are

considered diagnostic for the period. As likely with earlier periods, the material culture included various textile products such as baskets and mats, and wooden utensils such as bowls, cups, and spoons (Willoughby 1935; Russell 1980:56).

Unlike groups of the Mississippi valley, the overall cultural pattern for the entire Connecticut Woodland era exhibits considerable continuity. Interregional contact increased during this period, however, with non-local lithic materials increasing from as low as 10% to as high as 90% from the early Middle Woodland to the Late Woodland (McBride and Bellantoni 1982:54; Feder 1984:105), although most trade appears to have been done between neighboring groups rather than initiated through long-distance forays (Salwen 1983:94). The lack of enormous agricultural surpluses for the time is indicated by the low density of mostly small storage features in habitation sites, as well as the ubiquitous primary inhumation of people without a select portion of graves exhibiting special treatment that would require high energy expenditure (Walwer 1996). As confirmed by early ethnohistoric accounts, this suggests a largely egalitarian and relatively mobile society for the Late Woodland despite the fact that this period marks the highest development of food production (i.e. agriculture) during the course of prehistory in the region. Corn was undoubtedly important, however, as a disproportionate amount of the simple, flexed burials were oriented towards the southwest which was the aboriginally acknowledged direction for the origins of corn and the Spirit Land.

Local Sites and Surveys

A Late Archaic occupation (60-013) was discovered on Faulkner Island about five miles off the coast of Guilford during a professional survey (Waller and Mair 1998). Traces of prehistoric activity included a quartz Squibnocket triangular projectile point, quartz and chert debitage, and two refuse features containing a high density of snail shells, bone from small mammals, fish, bird, turtle, and shark teeth, as well as carbonized floral remains including sumac, thistle, hickory nut, and butternut. Most other prehistoric sites of the area have been found along the coast in Guilford, as well as the Pine Orchard and Indian Neck areas of Branford to the west (Figure 10).

A number of burial sites have been recorded in Guilford, mostly dating from the Late Archaic through Early Woodland periods, although more specific chronological designations are not available. A site (60-004) near the mouth of Sluice Creek about two miles southeast of the project area contained two burials in a village setting that also produced adzes and a slate knife or ulu. A site (60-003) on the coast about three miles to the southeast of the project area revealed a cache of large oval-shaped chert preforms in a feature which may represent a cremation burial. Another site (60-005) within several miles to the south-southeast of the project area on the coast contained a burial represented by three fragments of human skeletal remains, polished adzes, gouge, pendant, scraper, slate semi-lunar knife, and red ochre (Russell 1941). A flexed burial of an adult female was recorded at another nearby multi-component site (60-009) on the coast that also produced a high density of ceramics as well as clear quartz crystal, celt, full grooved axe, carbonized corn, Squibnocket projectile point, bone, graphite, and ochre.

Other sites in Guilford span the entire Woodland era. A professional survey of the Guilford Harbor and Marina dredging project (McBride 1991a, 1991b) several miles east-southeast of the project property near the East River revealed several Woodland occupations. Site 60-008 is an Early to Middle Woodland shell midden and camp site having yielded thick-

walled and grit-tempered ceramics, chert and quartz debitage, and oyster shell. Site 60-007 is a similar Late Woodland component with three loci yielding a Levanna projectile point and thin-walled ceramics characteristic of the later Woodland era, as well as two other triangular points, bifaces, chert and quartz debitage, utilized flakes, oyster shell, and bone.

Excavations at the grounds of the Henry Whitfield House about two miles southeast of the project area revealed possible post-molds, a hearth, ceramics, a Levanna projectile point, and a point close in form to Lamoka which may indicate that the prehistoric occupation of the site extended back to the Late Archaic, (Anderson et al. 1977:42; Langley 1982), although it is also suggested that the material may date to the early Contact period when local Indians reportedly helped in the transport of construction materials (i.e. stone) to the site of the main house in 1639 (see 'Local History' section). The prehistoric component of the Whitfield site has since been confirmed by other surveys (e.g. Walwer and Walwer 2000).

A rockshelter site (60-012) recorded about one mile south of the project area near a marsh (Burlew 1993) produced material likely dating to the Late or Final Woodland, including incised and shell-tempered ceramics, as well as quartz debitage, calcined and split bone, and shell (northern quahog, eastern oyster, Atlantic Bay scallop). A fragment of lead recovered from the site may indicate an early Contact period chronological designation.

Some sites in the area can not be adequately dated because of a lack of diagnostic material or poor documentation. A site (60-010) on the East River about two miles northeast of the project area, for instance, yielded projectile points, knives, axes, pendants, and a semi-lunar knife, although the collection remains with a private collector and lacks further documentation in site files. Other more questionable sites include the five rock carvings at Hanna Quarry (60-011) on Lost Lake about two miles south of the project property, and likely represent the activities of late 19th Century workers rather than pre-Contact Native Americans. The latter contention has been supported by some who romanticize more ancient connections between Europe and North America. There was also a reported carved bone or wood object (60-006) found in the late 19th Century a couple of miles to the northwest of the project area in the upper Hoadley Creek drainage, possibly attributed to Native American activity in the area.

Summary

In summary, a moderate density of prehistoric sites has been documented within several miles of the project property. Larger, seasonally occupied sites tend to lie on glacial meltwater landforms near larger rivers and along the coast. The majority of sites have been found along the coast, in part because of the higher diversity of food resources in estuaries (e.g. fish and shellfish), as well as denser Euroamerican settlement and construction activities which exposed sites in these resource-rich areas. Exceptions to this general pattern include rockshelters or task-specific sites in more uplands settings. Sites in the broader area span much of the prehistoric sequence of the region, with most from the Late Archaic through Late Woodland periods. The lack of a higher density of sites compared to other coastal towns in the area may be partly attributed to the lack of larger streams or rivers and associated broad glacial outwash landforms which were highly conducive to prehistoric settlement. Conversely, the lack of previously documented sites in the vicinity of the project area is likely due to its rocky, hilly upland settings at relatively great distances to the nearest major drainage.

Figure 10: Prehistoric Sites of the Region

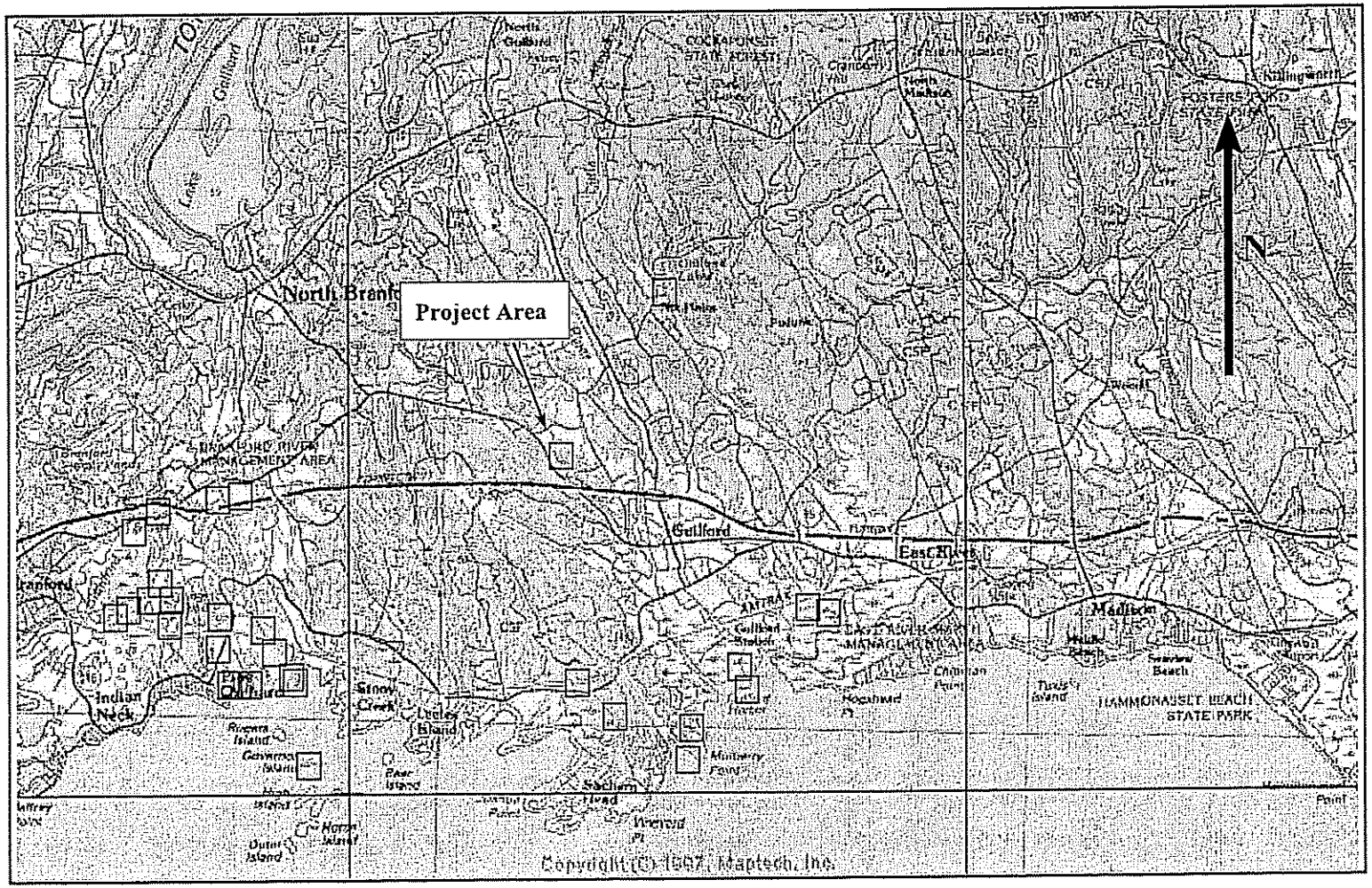

Figure 10: Schematic distribution of sites in the vicinity of the project area (Scale: 1" = 2 miles).

Historic Background

Contact

The Contact period is designated here as the time ranging from the first substantial contact between Europeans and Native American inhabitants of the area, to the time the area was thoroughly occupied by Euroamerican settlers, from roughly 1600 to 1700 (Table 2). The first contact between aboriginal populations of the broader region and European explorers occurred in 1524 when Verrazano reached the coast of New England (Terry 1917:16). Others followed in the first decade of the 1600s (Salwen 1983). In 1614, Dutch explorers reached the Connecticut River (DeForest 1852:70; DeLaet 1909 [1625-1640]:43), and in 1625 they were met by the Quinnipiac in New Haven Harbor (Brusic 1986:9) when they established fur trading relationships with the native inhabitants of the region until the early 1630s (Guillette 1979:WP2-4). Substantial English settlements in the area started in 1635-1636. DeForest (1852:48) estimated about 6,000 to 7,000 Native Americans in Connecticut at this time, while Winthrop estimated somewhere between 12,000 and 15,000 and most others (Trumbull 1818:40; Gookin 1970[1674]; Cook 1976; Snow 1980:35; Bragdon 1996:25) between 16,000 and 20,000.

The composition of the tribes at the time of contact is fairly well known, although boundaries fluctuated significantly, as did the political alliances by which the tribes could be defined (Thomas 1985:138). Three major divisions of Algonkian speaking groups can be delineated, and their territories conform well to ecozone distributions (see Dowhan and Craig 1976:26 and Speck 1928:Plate 20), including the Mohegan-Pequot range in the Southeast Hills and Eastern Coastal ecoregions, the Nipmucks in the Northeast Hills and Northern Uplands ecoregions, and tribes of the Wappinger-Mattabesec Confederacy in the North Central Uplands and most of western Connecticut. The validity of the Wappinger-Mattabesec Confederacy as a cultural entity has been recently challenged (Salwen 1983:108-109), however, with many smaller and somewhat independent tribes occupying much of the western half of the state.

The Menunketucks occupied the territory comprising Guilford and parts of Madison by the Contact period (Spiess 1933:29-30). The Wangunks occupied territory to the north, while the Hammonassets occupied territory east of the East River (Spiess 1933:29-30). On a larger scale, the Menunketucks may have been affiliated with the Mohegan-Pequots to the east, with the name "Menunketuck" thought to be a Mohegan derivation for 'that which fertilizes the land' referring to the large amounts of fish procured by coastal tribes to fertilize corn fields (Trumbull 1974:29). The Menunketucks were closely affiliated with the Quinnipiacs to the west by relation, and when the female sachem Shaumpishuh sold the territory of Guilford to Euroamerican settlers, the remaining members of the tribe subsequently moved west to Branford and East Haven at Momauguin (also the name of Shaumpishuh's sachem brother) (DeForest 1852:167; Spiess 1933:29). This amounted to merely 14 men, six women, and 14 children (DeForest 1852:167; Spiess 1933:29), with no recorded Native American settlement at Momauguin 150 years later and only 23 inhabitants in the original territory of Guilford by the end of the 18th Century (DeForest 1852:361; Steiner 1897:425).

The initial land transaction between English settlers and the Indians took place in 1639, with Euroamerican compensation for the entire territory amounting to merely a dozen of each of the following: coats, fathoms of wampum, looking-glasses, pairs of shoes, pairs of stockings,

Table 2: Local Historic Chronology

Contact (17th Century)

Dutch explorers make contact in the Quinnipiac drainage in 1614, trade relationships until the early 1630s.
Severe disease epidemics in 1616-1619, 1633 reduce Native American populations.
Whitfield and others purchase Guilford from the Menunketucks in 1639, Whitfield House built.
Euroamerican settlement concentrates on the plain between the West and East Rivers.
Whitfield helps establish first Guilford grain mill in 1643.
Early settlers rely on self-subsistence agriculture and bartering economy.
Guilford reaffirms land acquisitions from Nausup in 1686.

18th Century

Madison set off as East Guilford Society in 1703, North Guilford set off as separate society in 1720.
Euroamerican settlement and Native American depopulation make aboriginal adaptations impossible, Euroamerican acculturation increases steadily.
Self-sustained Euroamerican farming and minor cottage industries (milling, smithing, etc.).
Rapid growth in population, diversity of Christian denominations.
Shell fishing, shad fishing, and West Indies trade adds diversity to local economy.
Minor skirmishes during the Revolutionary War.

19th Century

Economy still mostly based on agriculture, poor house built in western Guilford in 1814.
Buildings and cemetery graves moved from the Green.
Madison incorporated in 1826, population grows steadily but slowly.
Irish immigration increases diversity of population.
Railroad line completed through Guilford in 1852, light industry grows including granite quarrying.
Guilford develops as a summer resort town.
Expansion of civic and business enterprises (e.g. libraries, banks, schools, lodges, etc.).

20th Century

Trolley lines established in Guilford, 1910-1938.
Town moves towards suburban layout after World War II.
Guilford's population increases greatly after completion of Interstate I-95 in 1960.
Project property changes hands many times during 20th Century
Commercial store, cell tower, self-storage facility built on small parcel in late 20th Century.
Recent unauthorized dumping occurs on site; pedestrian bridge across stream abandoned before completion.

hatchets, knives, hats, porringers, and spoons; as well as four kettles and two English coats (DeForest 1852:167; Rockey 1892:111-112; Steiner 1897:29). A reaffirmation of Euroamerican "property rights" to the original settlement area and North Guilford was initiated in 1686 by an agreement between the town and Nausup of New Haven (Steiner 1897:157-158,162).

Ethnohistoric sources yield clues to aboriginal Final Woodland and early Contact settlement patterns (McBride and Bellantoni 1982; Starna 1990:36-37). Spring settlements were located to take advantage of anadromous fish runs in larger drainages and along the coast. Late spring attention focussed on tending corn fields. Semi-sedentary settlements near these fields were supported by special-task hunting and gathering sites. Dispersal in the late fall and winter brought smaller groups into protected, upland or interior valleys where hunting and gathering continued, for a longer duration in the Contact period than earlier and by a smaller subsistence unit (e.g. single family). Fortified villages were likely a response to very early Contact period intertribal political strife resulting from increased economic pressures of sedentism and territoriality (Salwen 1983:94; McBride 1990:101; but see Thomas 1985:136). Large villages were found to be associated with a central-based circulating settlement system with family units dispersing from and returning to the major settlement on a seasonal basis in the lower Connecticut River Valley and surrounding region in the early Contact period (McBride 1981). Eventually, however, many Native American populations had been dispersed and afflicted by disease, warfare, and intertribal conflict to the point that small, scattered reservations served as the last community sites for various aboriginal populations in the region.

The early Contact period economic base for Native Americans in Connecticut continued to consist of hunting deer and small mammals, gathering berries, nuts and roots, and procuring shellfish and fish on larger drainages and along the coast (Waters 1965:7; Salwen 1970:5). This basic subsistence strategy was supported by varying intensities of horticulture, including the production of corn as the staple, as well as squash, beans, Jerusalem artichoke, and tobacco (Guillette 1979:CI5; Starna 1990:35). The importance of corn is evident in the description of ritual activities, including the Green Corn Festival and similar ceremonies that extended with various groups into the present day (Speck 1909:194-195; Speck 1928:255; Tantaquidgeon 1972:81; Fawcett 1995:54-57). Elderly women held extensive knowledge of wild plants which provided a host of medicines and treatments (Tantaquidgeon 1972; Russell 1980:35-37). Wigwams continued to serve as the principal form of housing, in some cases well into the 18th Century (Sturtevant 1975). The material culture included a mix of aboriginal forms as well as some European goods such as metal kettles and other metal implements (knives, projectile points), cloth, glass beads, and kaolin pipes (Salwen 1966, 1983:94-96). Wampum served as an important trade item for the Native Americans with European traders, but more significantly had served as symbolic signs of allegiance or reciprocity and sacred markers or tokens of honor in the form of belts (Guillette 1979:CI8; Ceci 1990:58-59; Salisbury 1990:87; Fawcett 1995:59). With European metal drill bits, tribes along the coast were now mass producing wampum for trade with the Dutch and English who in turn used the shell beads to trade with other tribes further inland (Salwen 1983:96; Ceci 1990:58). Late Contact period Euroamerican goods included various metal tools, glass bottles, ceramic vessels, kaolin clay tobacco pipes, and nails (McBride and Grumet 1992). Unlike the Late Woodland, Contact aboriginal lithic products were once again mostly manufactured from local sources (McBride and Bellantoni 1982:54). Dugout

canoes may have continued to provide a major form of transportation in larger drainages (Salwen 1983:91). While colonization brought new material goods to Native Americans in the area in exchange for land and services, the indigenous inhabitants became increasingly subject to legislative and economic restrictions by the colonists (Salisbury 1990:83).

Sachems and councils of leading males formed the basic political unit for groups of villages (Gookin 1970; Simmons 1986:12-13), along with clan mothers whose authoritative roles became diminished as a result of a strong European male-leadership bias (Fawcett pers. comm. 1996). Tributes paid to sachems were generally used as reserves for the tribe at large. Although sachems were generally assigned by hereditary lineage, this was not always the case (Bragdon 1996:140-141). Authority was usually enforced by persuasion of a council. Shamans were "magico-religious" specialists of the tribes who also had a considerable role in leadership and decision-making (Speck 1909:195-196; Simmons 1986:43; Starna 1990:42-43). Rules of obligation and reciprocity operated on all levels of tribal-wide decision-making (Bragdon 1996:131-134), serving to diffuse centralized authority. Other special status roles included warriors and persons who had visions, thus social status was largely based on achievement and recognition. While the assignment of lineality (i.e. matrilineal vs. patrilineal) for the area tribes is still largely debated (Bragdon 1996:157), the well established practice of bride-pricing supports the contention of patrilineal social organization (Speck 1909:193; Salwen 1983:97). Post-marital residence appears to have been ambilocal.

On a larger scale, more powerful tribes demanded tributes from smaller ones, often resulting in loose alliances between the latter. This process resulted in a dynamic political situation that prompted intertribal conflict, especially after contact with Euroamericans (Guillette 1979; Bragdon 1996). The European settlers of the Contact period would eventually use this embedded rivalry system to their advantage. In the period between 1616 and 1619, and more severely around 1633, disease epidemics would initiate a trend of drastic reductions in the native population that aided in Euroamerican settlements of the area (Snow and Lanphear 1988; Snow and Starna 1989; Starna 1990:45-46). Diseases introduced into the Americas included chicken pox, cholera, diphtheria, malaria, measles, oncercerosis, poliomyelitis, scarlet fever, smallpox, tapeworms, trachoma, trichinosis, typhoid fever, whooping cough, and yellow fever (Newman 1976:671).

Guilford was first settled by Euroamericans in 1639. The Reverend Henry Whitfield, one of the first to settle here at that time, was a classic example of a Non-Conformist who came to the "New World" in order to escape the stifling pattern of religious persecution in England (Barber 1836:214; Steiner 1897:16). Whitfield was one of more than two dozen heads of families to sign a covenant regarding a proposed settlement near Quinnipiac (Rockey 1892:112-113; Steiner 1897:24-25). The original settlement in Guilford consisted of home lots and out lots for each settler, as well as a commonly held "plantation" represented by six primary "planters" who effectively formed a corporation relatively independent of the New Haven Colony (Rockey 1892:119; Steiner 1897:29-31). Built in 1639-1640 after nearby temporary shelters had been constructed, Whitfield's stone house served as the primary meeting place for the first several years of settlement until a stone meetinghouse was built at the north end of the town green (Rockey 1892:138; Steiner 1897:34). It was also perceived as a fortified structure in the event of an attack from Native Americans of the region (THWM 1970:3; Anderson 1991), although local

Indians were reportedly used to help bring stones for the construction of the house from rock ledges at the Sawpit Quarry some distance to the east of the house (Kelly 1939:xii; THWM 1970:9). Whitfield apparently established the first grain mill of Guilford in 1643, although it would be finally constructed and operated by Robert Kitchell (Steiner 1897). Typical home lots of Guilford were between three and ten acres each, surrounding the then larger green (Steiner 1897:49-55).

Early town government was founded upon a mix of common law from native England and "the higher law of Divine Revelation" (Steiner 1897:38-39), the latter of which played a more prominent role after 1643 when the New Haven colony assumed supreme executive civil and military power with respect to surrounding towns (Rockey 1892:119; Steiner 1897:56-59,99). The town and larger colony together would come under the jurisdiction of the Connecticut colony two decades later (Rockey 1892:121; Steiner 1897:101,141). The town suffered from the loss of many of its prominent founders to death or a return to native England or other parts of New England (Rockey 1892:116; Steiner 1897:60), although the list of settlers by 1650 included nearly 50 heads of families (Steiner 1897:124-125). The population of Guilford was 255 by 1670 (Steiner 1897:266).

The majority of early settlers of Guilford engaged in self-subsistence agriculture (Steiner 1897:249) within a bartering economy, while many also doubled as early town officials including ministers, town officers, surveyors, deputies, product overseers and assessors, mill committees pound-keepers, and others to follow (Steiner 1897:140-146). A school was established in Guilford as early as 1646, with a schoolhouse built as early as 1671 (Steiner 1897:394-396). The first town mill was constructed by 1644 as a tide mill near the mouth of Sluice Creek (Rockey 1892:126; Steiner 1897:227), several years before the first bridges across the East and West Rivers (Rockey 1892:125). Specific rules were initiated for the division of lands depending upon their intended use, as well as setting off town lands to remain in common (Steiner 1897:172-173). Pounds were established in order to retain livestock venturing off owners' lands (Steiner 1897:238) despite rather strict fencing ordinances (Rockey 1892:132; Steiner 1897:246-248).

18th Century

In 1702, Guilford had been designated by the state as one of eight principal ports (Rockey 1892:109; Steiner 1897:144), a year before Guilford received its official charter through a patent issued by the Connecticut government (Steiner 1897:159-161). Madison, as the East Guilford Society, was set off the same year (Rockey 1892:139; Steiner 1897:279). Official boundaries of the town fluctuated since its initial settlement for over 200 years to follow (Steiner 1897:162-166). The early concern for the layout of the town, and even aesthetic landscaping considerations, are amply evident in town decrees including those protecting trees along public roads (Rockey 1892:131-132; Steiner 1897:181). The early part of the 18th Century witnessed the expansion of the population of the town into North Guilford which became a separate society in 1720 (Rockey 1892:118,143; Steiner 1897:199-200,293). The population of Guilford (including the present bounds of Madison) was over 1500 by 1730 and more than doubled to over 3500 by the end of the century (Steiner 1897:267). This included a moderate African American population at less than 100 people. Some religious diversification was realized during the 18th Century of Guilford in the form of Episcopal and Methodist churches, with Baptist and Catholic churches established in the first half of the next century (Steiner 1897:371-390).

Self-subsistence farming continued as the major economic base of Guilford throughout the 18th Century. Hilly, upland settings, particularly in the vicinity of the project area and surrounding territory which remained very lightly developed during the 18th and 19th centuries, were limited mostly to pasturing or even left uncleared for the provision of wood for fuel. Shell, seaweed, and fish were procured from the coast for use as fertilizer in fields which were used to grow corn, flax, potatoes, turnips, onions, tomatoes, rye, oats, and various other grains, particularly in less rocky areas along the coast, major streams, and major estuaries east of the West River (Steiner 1897:177-178). Other agricultural efforts included the production of cider and raising cattle, hogs, horses, and sheep (Steiner 1897:238-245). Shellfishing was undoubtedly an important additional economic component in early historic subsistence practices as reflected in various town acts regarding the conservation of oyster beds and clams (Steiner 1897:186), and fish such as shad were being procured in considerable quantities during spring runs (Steiner 1897:209).

Moderate economic diversification occurred in the 18th Century of Guilford, limited to the establishment of fulling mills, small ship builders, and various tradesmen including a tailor, weavers, carpenters, shoemakers, wheelwrights, glasers, coopers, blacksmiths, a hatter, a saddler, a sailmaker, a rope maker, and a clothier as representatives of cottage industries typical for southern New England at the time (Rockey 1892:126-127; Steiner 1897:250). Sachem's Head Harbor on the coast serviced ships engaged in the West Indies trade during the 18th Century, with Guilford supplying some livestock and timber (Rockey 1892:109). Various wharves were built during the 18th Century on the larger drainages to accommodate this effort (Steiner 1897:218). The first post office in Guilford was established in 1789 (Rockey 1892:133; Steiner 1897:265-266), four years before the construction of the first town hall (Rockey 1892:123). Only minor skirmishes occurred in Guilford along the coast during the Revolutionary War (Rockey 1892:162-164). By the end of the century, the Boston Post Road and well established stage line through Guilford served as the official mail route from Georgia to Maine (Steiner 1897:213).

19th Century

East Guilford, or Madison, was set off from Guilford as a separate town in 1826 (Rockey 1892:108; Steiner 1897:191). Guilford's population (excluding Madison) remained relatively stable during the 19th Century, ranging from nearly 2200 in 1800 to less than 2800 by 1890 (Steiner 1897:267). Most activity and settlement was limited to the borough of Guilford, incorporated in 1815, between the West and East Rivers (Rockey 1892:130; Steiner 1897:257). Buildings and even cemetery graves were removed from the green in the early 19th Century (Rockey 1892:132; Steiner 1897:258-259,391), and a poor house was constructed in the western part of Guilford in 1814 (Rockey 1892:124). Immigration to Guilford during the first half of the 19th Century included 40 families from Ireland, with an abundance of Scandinavian and Italian families coming towards the latter part of the century to work the quarries at Leetes Island and Sachem's Head (Steiner 1897:139).

Self-subsistence farming continued into the 19th Century as the major economic base of Guilford, although economic diversification at this time included the procurement of timber for shipment to major market centers including New York City (Steiner 1897:179). Shipping itself continued to provide the town with another source of income during the 19th Century. Other

cottage industries were evolving into light industry during the 19th Century, including a manufacturer of light machinery, an iron foundry, manufacturer of steam engines and other heavier machinery, tanneries, carriage maker, brick manufacturer, brass foundries, paper factory, manufacturer of ivory and wood items, manufacturer of school furniture, creamery, hub and wheel company, canning company, silk company, and fish oil works (Rockey 1892:127-130; Steiner 1897:252-254). Guilford also contains good quality granite as a natural resource, actively quarried at several locations in the 19th Century for the production of building materials, including the base of the Statue of Liberty (Rockey 1892:129; Steiner 1897:255-256).

Table 3: Principal Transfers of Property Title

Guilford Tax Assessor's Map #79
Boston Post Road, Guilford, CT

Lot 34 (12 acres)

1989	Vol. 375, pg. 128	Paul W. Staschke to Richard Russo et al.
1965	Vol. 153, pg. 688	Laurel Crest Company to Paul W. Staschke (~10 acres)
1946	Vol. 98, pg. 169	Walter F. and Helen Niemi to Laurel Crest Company
1946	Vol. 98, pg. 86	Florence S. Travis to Helen and Walter F. Niemi (~10 acres)
1945	Vol. 96, pg. 511	Joseph G. Downing to Florence S. Travis (1/2 interest) (see also 93/405 from Claudia G. Downing)
1930	Vol. 78, pg. 244	Paul Yungelson to Joseph G. and Claudia G. Downing (~10 acres)
1928	Vol. 74, pg. 401	Myra E. Joyce to Paul Yungelson (~10 acres)
1925	Vol. 72, pg. 570	William F. Cordts to Myra E. Joyce (~10 acres)
1901	Vol. 53, pg. 504	Walter G. Bishop to William F. Cordts (40 acres with buildings) (with reference to use-right of barn with hay, crops, cord wood)
1889	Vol. 47, pg. 279	Andrew J. Benton to Walter G. Bishop (40 acres) (Benton accumulates many parcels in late 19th Century)

Lot 35 (2.4 acres - 1919 Boston Post Road)

1976	Vol. 222, pg. 556	Paul W. Stanchke to Roger W. Stone (see parcel above: 153/688)

Lot 36A (11.56 acres)

1986	Vol. 309, pg. 940	Valley Shore Builders, Inc. to Richard Russo (13.1 acres)
1986	Vol. 309, pg. 938	Edward M. and Helene M. Mattei to Valley Shore Builders, Inc.
1964	Vol. 152, pg. 186	Lilly Menne to Edward M. and Helene M. Mattei
1952	Vol. 114, pg. 535	Carl Menne to Lilly Menne (27 acres)
1944	Vol. 95, pg. 573	Richard and Frank Creter to Carl Menne
1940	Vol. 91, pg. 39	Martha Abbes to Richard and Frank Creter
1927	Vol. 74, pg. 305	Frank J. Creter to Martha Abbes (27 acres)
1927	Vol. 75, pg. 453	Simeon B. Chittenden et al. to Frank J. Creter (Chittenden accumulates many parcels since mid-19th Century)

Economic diversification was also recognized during the 19th Century in the development of a small resort industry as initiated by the construction of Sachem's Head House, the largest summer hotel between New York and Newport when it was built in 1832 (Rockey 1892:134; Steiner 1897:209-210). Major turnpikes were now being established in various parts of town, increasing the efficiency with which travel and the transport of goods could take place (Rockey 1892:125-126; Steiner 1897:214-215). The construction of the New Haven and New London railroad line through Guilford was completed in 1852 (Rockey 1892:126; Steiner 1897:218). Coal was now being imported as a major fuel source (Steiner 1897:179), replacing wood to some degree. Other civic and related developments in Guilford during the 19th Century included the growth in number of lodges, schools, libraries, banking, newspapers, and organizations such as the Guilford Agricultural Society (and annual fair and cattle show), and the United Workers volunteer organization (Rockey 1892:132-137; Steiner 1897).

Land records (Table 3) and historic maps (Figure 11) of the area continue to show a very light density of settlement in the vicinity of the project area and immediate surroundings (Whiteford 1852; Irvine 1852; Smith and Smith 1856; Beers 1868). Land records also show limited historic use of the project area through time. Both principal lots of the property were part of larger farm lots during the 19th Century and early 20th Century, and it is only during this time when there is any reference to land-use. In particular, the 1901 deed for the northern parcel, then 40 acres, makes reference to the right for use of a barn with hay, crops, and cord wood. A quick review of historic land-use in southern New England would suggest that the project area was most likely utilized for the latter purpose, given the obvious difficulty of historically building structures or growing crops on the Hollis soils of the project property.

20th Century

Trolley lines were in operation in Guilford between 1910 and 1938, following the incorporation of telephone, electric, and water services which brought the town into the new century. Agriculture retained a prominent role in the local economy until World War II. At the start of the 20th Century, the project property was part of two lots owned by Simeon B. Chittenden and Walter G. Bishop. The project property changed hands many times during the early part of the 20th Century, a time when parcels of land were still commonly held and exchanged like currency when compared to today's land-ownership practices. Land records from the 20th Century indicate no structures or particular uses of the property.

Strong suburban influence and population growth after the war caused a change in the overall character of the town which still retains a largely rural atmosphere in many areas. Guilford currently contains an area of 47.6 square miles occupied by a population of more than 21,000 people which has doubled over the last several decades. The town now contains at least seven schools and churches each. While some minor agricultural and light industrial pursuits continue, the town still remains largely residential with many commuting to larger work centers including New York City. The town is well known for its many recreational activities including those provided by many of the local parks, antique shops, established wooded trails, beaches, marinas, art and music festivals, and of course, historic structures and districts. The project property appears to have remained essentially idle during the late 20th Century with the exception of the 2.4-acre lot set off in 1977. This part of the overall property currently contains a commercial store, cell tower, and self-storage facility reflecting the growth and expansion of the population along the Route 1 corridor of Guilford during the late 20th Century.

Figure 11: Historic Sites of the Region, 1852

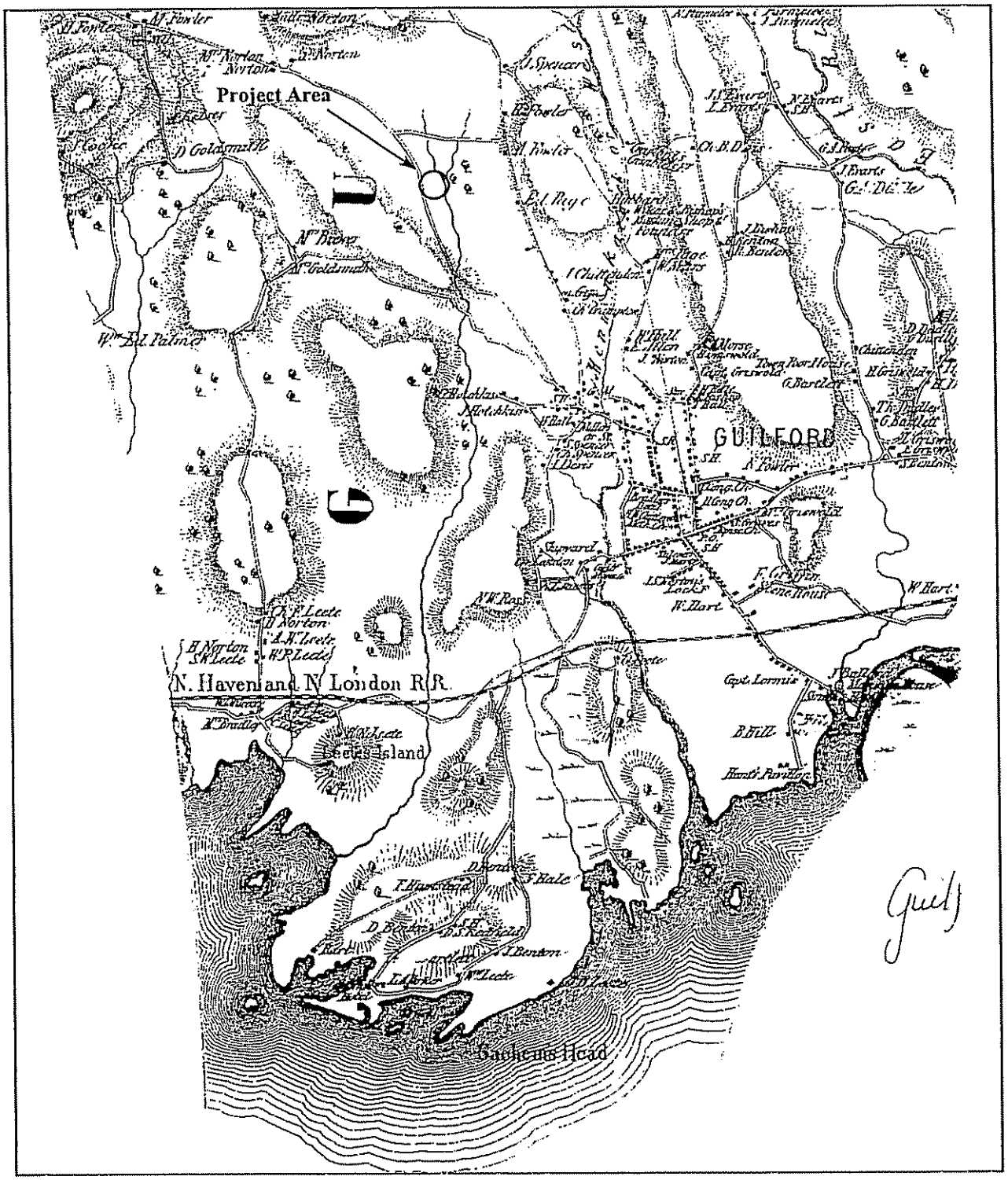

Figure 11: 1852 map of Guilford (Whiteford 1852).

Local Sites and Surveys

There are only two recorded Native American sites in Guilford which can be confidently attributed to the Contact period. One site (60-001) revealing four burials was recorded near the mouth of the West River about several miles to the southeast of the project area (Glynn 1952; Russell 1952). Another Contact period site (60-002) on a tidal marsh a couple of miles to the southwest of the project area revealed shell-tempered ceramics, quartz projectile point fragment, charcoal, and early historic ceramics.

Professional archaeological testing on Faulkner Island (69-016) revealed 19th and early 20th Century refuse related to the lightkeeper's house, oil house, and fog signal house (Waller and Mair 1998). The island was sold to the federal government in 1801 for the construction of a lighthouse to be maintained by keepers and their families until the responsibility was assumed by the United States Coast Guard in 1939. Other professional surveys in the area have failed to reveal significant results (CAS 1992; ARS 1995; Walwer and Walwer 1999; Binzen 2000; Reeve and Walwer 2001; Keegan et al. 2002; Morphew 2003a, 2003b).

The town green and immediate surrounding area is a nationally registered historic district about one mile to the southeast of the project area, containing a mix of Gothic, Colonial, Federal, Classic Revival, Greek Revival, and Victorian buildings including both homes and churches (Raiche 1975). Several more independently registered structures lie on Boston and Union Streets just east of the green. The Hyland House was built in 1660 and contains one of the earliest uses of decorative chamfered girts (Brockmeyer 1975a). The Griswold House is another early 18th Century colonial structure representing a founding family (Brockmeyer 1975b). The 1670 Acadian house has a unique T-shaped design and was rumored to have housed 11 Acadian refugees in the 1750s (Brockmeyer 1975c). The 1696 Sabbathday house on Union Street remains as a unique example of the structures which were built by parishioners near town greens so that they could have shelter in between morning and afternoon services on Sundays (Brockmeyer 1975d).

Lying to the south on Whitfield Street, the 1639 Whitfield house is the oldest standing stone structure in southern New England, and as described above, belonged to one of the founding leaders of Guilford. The rugged stone block house with steep gabled roof, original moveable stairs, portholes, and iron shutters was built to serve as a fortification as well as a residence (Kelly 1939:xi; Anderson 1991; McBride pers. comm. 1999), although the original steep pitch of the roof was also likely made because it was originally thatched and required drainage during rain (THWM 1970:12). The post-medieval domestic structure and its grounds are listed as a National Historic Landmark (Cunningham 1995) and recorded with the National Register of Historic Places (Babbitt 1972). It was originally fashioned after the houses in the north of England despite Whitfield's Kent origins, possibly attributed to the renowned leadership of William Leete from northern England who accompanied Whitfield on his exodus from England (THWM 1970:10-11). The original floor-plan of the structure includes the great hall in the first floor of the west wing, a kitchen in the ell to the east, and three chamber rooms on the second floor. Remodeling and restorations of the building occurred in 1868, 1902, and in the 1930s, with an emphasis on Colonial-Revival improvements. The house now serves as a museum and research center.

The earliest documentation of archaeological investigations at the Whitfield House is from the 1930s when limited excavations were done in association with the last reconstruction of the house. Among other things, roofing slate was reportedly found in the soil around the house at this time (McBride pers. comm. 1999). Since then, other archaeological excavations have taken place on the grounds (McBride pers. comm. 1999), revealing mostly 19th Century refuse and traces of outbuildings including what has been debatably interpreted as a Late Woodland structure. In the 1960s, museum curator John Kopper performed many tests and units at various locations throughout the property (Kopper notes, n.d.). In the 1970s, Dr. Langley of Eastern Connecticut State College performed further excavations along with museum staff member Beverly Anderson (Langley 1982; Anderson et al. 1977). An extensive study was performed by Dr. Harold Juli of Connecticut College in the garden area to the south of the main house in the 1996-1997 field seasons (Juli 1999). Finally, more recent excavations by Yale University field schools have occurred at the site (Walwer and Walwer 2000; Tartaron and Lau 2001; Tartaron and Ghezzi 2001; Ghezzi and Tartaron 2003).

A lot across the street from the Whitfield House was surveyed in 2003 (TAMS 2004), revealing a high density of early to late 20th Century debris and structural features, and a lesser density of 19th Century artifacts related to the Rollwood Farm which featured silos, cow barns, poultry structures, and a residence. This lot has recently been proposed for utilization as extra parking for the Guilford Railroad Station located nearby to the southeast. Another documentary survey of the latter property (Clouette 2001) previously revealed a suite of historic structural areas including two freight stations, a switching tower, express office, section house or hand-car facility, carpenter shop, signal shop, passenger station, water tower, and engine house. The 1875 brick water tower and engine house were still standing at the time of the survey, although the ca. 1860 passenger station has recently been demolished.

Summary

Guilford has a well documented history, evident in both the local literature as well as the preservation of some of the earliest standing structures in New England. Early decimation of the Native American population is evident from historic descriptions which refer to the exodus of the remnants of the Menunketuck tribe as consisting of less than a few dozen people. Early Euroamerican settlement was concentrated between the West and East Rivers, and witnessed a progression from self-subsistence agriculture of the late 17th and early 18th Centuries to a town with an increasing diversity of cottage industries and a West Indies trade during the late 18th Century. Light manufacturing industries increased after the construction of the railroad in the mid-19th Century. Agriculture declined during the late 19th Century, although Guilford has continually maintained a somewhat rural character despite the suburbanization of the coastal towns during the late 20th Century. Based on historic literature, maps, and land records, the project property appears to have been located in a very lightly settled part of Guilford until the 20th Century. Its location on the Post Road, however, ensures that it at least witnessed several hundred years of active travel along this route.

CHAPTER 3: CONCLUSION

Cultural Resource Summary

There were no prehistoric cultural resources identified during the Phase Ia assessment survey of the project property. The project area proposed for development, limited to the hill ridge overlooking Spinning Mill Brook to the east, was determined to hold a low potential for prehistoric sites. The intricate topography of the area, as dictated by the folding and faulting of gneissic bedrock, is ideal for the potential of prehistoric rockshelter sites to exist, although none of the outcrops in the vicinity of the project area are substantial enough to have provided shelter. With respect to the potential presence of open prehistoric camp sites, the project area scores relatively low according to a statistical landscape sensitivity model developed and utilized by ACS. The project area scores only as high as 12.3 out of a possible 100, mostly due to its location on a hill ridge context with rocky soils and a considerable distance from the nearest major body of water. The project area is located adjacent to Spinning Mill Brook which would have served as an attractive resource to local wildlife, but the small size of the drainage would have only supported short-term resource procurement activities by local prehistoric inhabitants, while more substantial sites tended to be located on glacial meltwater landforms or alluvial terraces in close proximity to larger rivers and estuaries (e.g. West and East Rivers of Guilford). Site files housed with the Connecticut Office of State Archaeology and Connecticut State Historic Preservation Office confirm this general settlement pattern for the region, and reveal no previously recorded prehistoric sites in this part of Guilford. In addition, much of the project area itself has been disturbed to the point that any prehistoric site contexts would most likely have been destroyed by modern earthwork and landscaping activities. The pedestrian surface survey of the project area confirmed the substantial nature of prior disturbance, and revealed no prehistoric artifacts at the surface.

The pedestrian surface survey of the project area also failed to yield any historic artifacts. There is a relatively high abundance of modern debris on the property, however, particularly along the perimeter where unauthorized dumping appears to have taken place. Examples of abandoned materials noted on the project area include a dump truck, mattresses, rolled carpets, outdoor plastic toy sets, concrete jerseys, PVC piping, a dog house and gate, windsurfing board, wooden pallets, and large concrete and metal drainage pipes. The lack of earlier materials recorded during the survey is not surprising, as land records and historic maps revealed no substantial developments on the property for a span of nearly 200 years, with a relatively light density of settlement throughout the historic era in this part of Guilford. Land records suggest use of the property was limited to pasturing, or even left open to provide cord wood as fuel. The location of the post road adjacent to the property appears to be the singular historic development and source of cultural resource sensitivity for the property, although this historic route has also been radically altered through time. Modern developments on the project property include a commercial store, self-storage facility, and telecommunications cell tower on a smaller lot adjacent to the road, an abandoned, partially constructed concrete and steel bridge constructed over Spinning Mill Brook, and septic facilities on the other side of the brook outside the proposed development area.

Figure 12: Self-Storage Facility and Cell Tower

Figure 12: Northwest view of the cell tower and self-storage facility in the west-central lot of the project property. The commercial store lies on the Boston Post Road immediately downslope of these facilities and out of view. Note the leveled hill ridge in the foreground that also features a paved driveway into the project area.

Figure 13: Abandoned Bridge

Figure 13: Northwest view of the abandoned bridge that was partially constructed over Spinning Mill Brook. The brook is constricted by earth and stone below the bridge, forming a pond immediately upstream.

Recommendations

The Phase Ia assessment survey did not reveal the presence of any prehistoric or historic cultural resources on the project property. The property lies along the historic route of the Boston Post Road which served as a major source of transportation and as a major link in the network of civic and commercial centers throughout the Northeast United States for several hundred years, although this part of the route was relatively undeveloped for most of that history. Land records and historic maps confirm the lack of substantial development in this area, and the property additionally carries a low sensitivity ranking for potential prehistoric cultural resources based on several environmental factors. Much of the project property has additionally been severely disturbed, including the stripping of topsoil and levelling of the hill ridge that supports the project area, as well as the utilization of the southeast section of the property for septic facilities. Based on the results of background research and the pedestrian surface survey, it is determined that the project property is not likely to contain potentially significant prehistoric or historic cultural resources, and it is therefore recommended that no further archaeological conservation efforts are warranted.

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