

REPORTS OF INVESTIGATIONS

Phase I Archaeological Investigations
for the Vollmer Property
Township of Shelter Island
Suffolk County, New York

June 2003

Prepared for:

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Vollmer Consulting, LLC, Bronxville, New York

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Report #: 239

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ABSTRACT

Between April and May 2003, TRACKER-Archaeology Services, Inc. conducted a Phase I archaeological investigation for the Vollmer property in Shelter Island, New York. Documentary evidence had revealed that the property was situated in a location that evidenced a higher than average potential for the recovery of archaeological sites.

The property was approximately 1 acre in size inclusive with wetlands and setback. The field survey consisted of the excavation of 20 shovel test pits across the project area. No prehistoric features or artifacts were encountered. No historic artifacts or features were encountered. No further archaeological work is recommended.

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INTRODUCTION

Between April 30, and May 20, 2003 Tracker-Archaeology Services, Inc. conducted a Phase IA documentary study and a Phase IB archaeological survey for a proposed house on the Vollmer property in Shelter Island, Suffolk County, New York.

The purpose of the Phase IA documentary study was to determine the prehistoric and historic potential of the project area for the recovery of archaeological remains. The Phase IA was implemented by a review of the original and current environmental data, archaeological site files, other archival literature, maps and documents.

The prehistoric and historic site file search was conducted utilizing the resources of the New York State Historic Preservation Office. Various historical and archaeological web sites were queried to review any pertinent site information. Research institutions utilized included: Shelter Island Historical Society, New York State archives at Stony Brook, and the library at TRACKER.

The purpose of the Phase IB survey was to recover physical evidence for the presence or absence of archaeological sites on the property. This was accomplished through subsurface testing and ground surface reconnaissance.

The Vollmer parcel is approximately 1 acre in size, including wetlands and wetland setback. It is bounded to the north by Fred's Lane, to the south by a creek, and to the east and west by private properties.

The study was completed by TRACKER-Archaeology Services, Inc. of North Babylon and Monroe, New York. Prehistoric and historic research was conducted by Alfred Cammisa, M.A. Phase IB field work was completed by Alexander Padilla, B.A. and Erik Castillo, B.A. Report preparation was by Alfred Cammisa and Felicia Cammisa, B.A..

The study was performed for Suffolk Environmental Consulting of Bridgehampton, New York and Vollmer Consulting, LLC of Bronxville, New York.

ENVIRONMENT

Geology

The project area is located in the southeast portion of New York State in the eastern part of Suffolk County. This portion of New York lies in the Atlantic Coastal Plains Physiographic Province. The coastal plain slopes gently eastward and is actually a strip of recently emerged sea bottom. The soils in this region consist largely of sand, clay and marl (a mixture of clay, finely fragmented shell and calcite). This region of Suffolk County appears to lie in an outwash plain containing undifferentiated till deposits adjacent to the Ronkonkoma Moraine which forms most of Shelter Island (Schuberth 1968: cover map, 9, 184-187; Van Diver 1985: 70; Soren and Jensen 1974).

Soils and Topography

Soils on the property consist of Haven loam, thick surface layer (Warner 1975:map 10, pgs. 72).

Haven soils are deep, well drained, medium-textured soils. Native vegetation consists of black oak, white oak, red oak, scrub oaks, and pitch pine. Thick surface layer appears to be found on outwash plains. It occupies drainage channels or closed depressions where silty material has occurred (Warner 1975:71-72).

Elevations on the project area range from sea level to 14 feet above mean sea level.

Hydrology

The project property is located along the north side of a tidal marsh associated with a small inlet of West Neck Creek. West Neck Creek appears more like a good sized inlet in size than a creek. West Neck Creek drains into West Neck Harbor which drains into Shelter Island Sound (Figure 1).

The project area is situated at the top of a small "neck" or peninsula, which is bordered by West Neck Creek on the west, West Neck Creek Harbor on the south, and Menantic Creek on the east.

Vegetation

The predominant forest community inhabiting the Coastal Plain in this vicinity (Cape Cod to the Carolinas) was the Northern Pine-Oak Forest. These forests are maintained largely by the effects of frequent forest fires. Were it not for these fires which the pine species have adapted to, these forests would slowly change to Mesic, dominated by oak, hickory and red maple. Northern Pine-Oak forests occur on sandy or otherwise poor soils that are overly dry.

They generally have lower species diversity than bottomland forests (Kricher 1988: 16-17, 65-66). The reason the forest soils and surfaces are so dry in this moist region is due to the excessive drainage of overly sandy soils on the Coastal Plain.

Prior to the intensive utilization of the area by Euro-American populations, the primary vegetation cover in the general project area probably consisted of pitch pine, virginia pine, bear oak, blackjack oak, chinkapin oak, scarlet oak, post oak, black oak, and eastern red cedar. The understory was most likely of bearberry, huckleberry, inkberry, broom crowberry, lowbush blueberry, sheep laurel, and wild raisin (Kricher 1988: 65).

In addition to the general pine-oak forest community on, and around, the study area, a localized eco-niche consisted of salt water marsh (tidal marsh). The vegetation of these "high marshes" is different from low marshes, and includes *spartina patens* or *distichlis spicata* or both (Kavanaugh 1980:22).

At the time of the Phase IB investigations the project area consisted mostly of cedar, locust, briars, grass, unidentified brush, and large creeper vines. The tidal marsh consisted of marsh grass.

PREHISTORIC POTENTIAL

The Northeast region, including New York can be divided up into three broad cultural groupings or time zones, briefly described as:

Paleoindian Period, circa 10000 to 8000 B.C. These people lived in small, widely scattered bands, hunting large grazing mammals such as mammoth and barren ground caribou in a park-tundra habitat, large browsing mammals such as mastodon, caribou, woodland musk ox, moose elk, etc. in a boreal habitat, and any small game or plant food that could be gathered. They had a small inventory of chipped stone tools, with the fluted spear or javelin point as the principal item. They generally camped along large waterways.

Archaic Period, circa 8000 to 1000 B.C. These people lived by hunting, fishing and gathering wild foods and shellfish in a habitat of mixed coniferous-deciduous forest. These people lived in both small inland camps near small streams or marshes and in large recurrently occupied fishing camps near large bodies of water. They lived in a more species rich environment and exploited it with a larger and more varied tool industry, including the atlatl, or spear thrower.

Woodland Period, circa 1000 B.C. to 1600 A.D. These people also lived by hunting, fishing and wild food and shellfish gathering. In addition, they developed a system of horticulture based on corn, beans, and squash as the primary cultigens. They lived in both small camps, either temporary or recurrent, and much larger villages which were sometimes palisaded for protection. They made and used pottery, copper tools, smoking pipes, the bow and arrow, and in general, had a larger and more varied tool industry than the preceding cultures.

A prehistoric site file search was conducted at the New York State Historic Preservation Office (NYSHPO). The search included a 2 mile radius around the project area. The following sites were recorded:

NYSM Sites	NYSHPO Sites	Site Description
5968		Crab Creek site: Late Archaic/Transitional occupation, partially excavated by J. Witek 1986-87. Collection at Shelter Island Museum.

5969		Crab Creek II site: Possibly single component Rossville site. Early Woodland. Collection at Shelter Island.
5970		Fresh Pond site: Late Woodland village containing Levanna and possibly Madison points.
7302		ACP Camp site.
7303		Shell Middens, ACP site: This site appears to be located closest to the study area, possibly on, or adjacent to, the property.
7349	10307.0387	Fresh Pond site, (SCAA 905). Owners exhausted site in the 1920's, possibly exhuming graves.

Assessing the known environmental and prehistoric data, we can summarize the following points:

- The study area is located along a tidal creek associated with West Neck Creek, an inlet to Shelter Island Sound. Previous archaeological investigations have shown the amount and types of food, medicine and material that could be gathered prehistorically from such an eco-niche (Cammisa 1995:).
- The property is located on a neck of land. Previous archaeological investigations have shown that "necks" or peninsulas were attractive places for Native Americans on Long Island (Cammisa et. al. 1995; Cammisa et. al. 1999).
- Numerous prehistoric sites surround the study area. The closest of these may possibly be located on, or adjacent to, the project parcel.
- Other archaeological surveys adjacent to the study area have recovered no prehistoric remains (Cammisa et al 1998; Cammisa and Cammisa 2002).

In our opinion, the study area has a higher than average potential for the recovery of prehistoric sites. The type of site encountered may range from a small procurement site. Periods could fall within any prehistoric cultures, including Paleoindian, Archaic, or Woodland.

HISTORIC POTENTIAL

Contact Period (Seventeenth Century)

At the time of European contact and settlement, the study area and surrounding territories were occupied by Manantic people/village. The Manantic were probably a branch or subtribe of the Manhanset tribe (Stone nd: map; Stone-Levine 1980: 161). The Indian name for Shelter Island was "Manhanseekahaquash-wornock" meaning an island sheltered by islands (Thompson 1918: 210).

Population estimates for original inhabitants of Shelter Island are limited. Estimates range from "a few to 100 families". Duvall (1952) mentions that the Manhanset tribe could summon 500 fighting men at this time. He is probably referring to all branches of the tribe. They lived in semi-permanent villages that were moved according to seasonal food procurement. By the end of the century, the Indians virtually disappeared from Shelter Island history (in Lightfoot 1985f: 65; Duvall 1952: 9).

The first European to Shelter Island was James Farret in 1638. He bargained with the Indians to buy it. He owned Shelter Island for three years and during that time the island was referred to as Mr. Farrett's Island. In 1641 he sold the island to Stephen Goodyear of New Haven. In 1651 Mr. Goodyear sold it to four merchants in the sugar industry in Barbados: Thomas Middleton, Thomas Rouse, Nathaniel and Constant Sylvester. The Sylvesters were the only ones to live on the island (Duvall 1952: 19-20). The island was called Sylvester's Island before it was named Shelter Island (Thompson 1918: 213).

It might be noted that the Native Americans had no previous custom of selling land. They did, however, have a practice of loaning or renting use of their customarily occupied territory for periods of time. The distinction between selling and renting or loaning use of the land was probably blurred to the advantage of the newcomers as their population outstripped that of the original inhabitants. The migratory settlement patterns of the native Americans were also advantageous to the colonists. The settlers were able to appropriate lands, usually the most fertile, during a season or year the native camped elsewhere (Cammisa 1984: 75).

Nathaniel Sylvester died in 1680 leaving his property to his sons, including Giles, Constant, Peter and Benjamin (Thompson 1918: 217).

Eighteenth Century

Shelter Island was organized as a Town in 1730. Before 1730 the Town associated with Southold Town and Shelter Island's Town

meetings (and records) were held in Southold (Thompson 1918: 218; Wood in Bailey 1949: 172).

Giles Sylvester eventually acquired four-fifths of Shelter Island (Thompson 1918: 217). When Giles died in 1706, one half of the island belonged to William Nicoll, George Havens owned 1000 acres near the center of the island and the remainder was owned by Brinley Sylvester. His portion included land north of a line from Deering Creek to Cockle's Harbor (Ross 1903: 1029).

A large portion of land was open to subdivision after the Town of Shelter Island was organized (1730). Outside families moved into Shelter Island and the population doubled from about 100 to 200 by the end of the century (Wood in Bailey 1949: 172; Ross 1903: 1031).

The project area is located on a neck of land bordered by West Neck Creek, West Neck Harbor and Menantic Creek. This neck of land used to be known as Menantic Farm. The first recorded owners of the 500 acre Menantic Farm (after the island's subdivision) were the L'Hommedieu family. At his time, about half the neck (Menantic Farm) was under cultivation and the other half within a virgin oak forest (Loper nd).

A meeting house, cemetery and church were all constructed on Shelter Island about 1742-43 (Thompson 1918f: 218).

A ferry was established around the middle of the century (Wood in Bailey 1949: 177-78).

In 1798, the L'Hommedieu family sold the Menantic Farm to Frederick Gook for about \$7000.00 (Leper nd).

Nineteenth Century

In 1801, the Gook sold the neck (Menantic Farm) to Charles Herrshoff for \$9000.00. In 1802, Herrshoff sold the neck to Samuel Lord for the same amount he bought it for. The Lord family had come from England to Charleston, Massachusetts in 1635. They moved to Lyme, Connecticut in 1685 and eventually went into shipbuilding and became sailors. Late in the 18th century, because of the forests demise, they moved to Shelter Island. They were interested in Menantic Farm because half of the farm was covered in primeval white oak forest. The Lord family, Samuel Lord, his two brothers and two sisters, moved into the ca. 1732 L'Hommedieu house (Duvall 1952: 94-95; Brewer 1972:26; Leper nd:2).

The shipyard may have ceased operating by around 1812. The business probably closed down due partially to the forest's demise (Starace nd; Leper nd:3-4).

Shipbuilding was carried out on Shelter Island during the early part of this century for about the next 130 years (Duvall 1952:93).

The 1838 U.S. Coast Survey shows the small inlet of West Neck Creek on which the project parcel is located. Two buildings can be seen on either side (north and south) of the end of the inlet. No structures appears to be on, or adjacent to, the study area (Figure 3).

The 1858 Chace map shows the residence of P. M. Lord situated between the small inlet of West Neck Creek and Menantic Creek. It is likely that this building is the one shown on the previous map (Figure 4).

The Nicoll family still owned their land on Shelter Island by 1865. The Sylvester portion was now supposed to be owned by Henry Dering who sold it to Lawrence V.D. Woodruff (Ross 1903: 1031).

The 1888 U.S. Coast and Geodetic map shows no buildings or structures on, or adjacent to, the study area. Extensive marshes can be seen across the inlet and on to study area (Figure 5).

The population of Shelter Island was supposed to be about 650 near the end of the century. The center of the island was more thickly settled than the remainder of the Town (Bayles 1962: 396).

The 1896 Hyde map appears to show the study area may be owned by F. Dickinson while H. Walthors owns the land south of the inlet and marsh. The neck is now referred to as Menantic. No buildings or structures are shown on, or adjacent to, the study area (Figure 6).

Twentieth Century

The 1906 Hyde map shows the study area with apparently the two previous property owners in a switched position. H. Walthors now appears as the owner of the study area. F. Dickenson now seems to own the property north of the inlet. No structures appears to be situated on, or adjacent to the study area (Figure 7).

An historic site file search was conducted at the New York State Historic Preservation Office (NYSHPO). The search included a 2 mile radius around the study area. The following sites are recorded:

NYSM Sites	NYSHPO Sites	Site Description
	10307.0387	Daniel Lord shipyard and residence. Residence fronted on Menantic Road. Shipyard on West Neck Creek, possibly adjacent to the project area. State Ed. site marker. "Lord Shipyard established around 1800." Famous Schooner Paragon which ran the Blockade in 1804."

However, the Lord house and shipyard also appear to be reported in other nearby spots. The Lord residence is also located midway between two natural coves but 1000 feet inland. This would place it out of the study area. The shipyard may have been located along the cove near the study area, or another cove or at Daniel Lord Road, further north (Brewer 1972:26). The Shelter Island Historic Society was not sure of the exact spot of either the Lord residence or shipyard (see Cammisa et al 1998).

A site visit confirmed that the State Education site marker was on the corner of Menantic Road a block away from the study area, and south of the tidal marsh and small inlet. The sign pointed down a 2-track road. Previous archaeological investigations on this property (south of the study property) reported no sign of a shipyard. The possible remains of a stone foundation were recovered as well as both a nineteenth century dump and an early twentieth century dump (see Cammisa et al 1998).

Assessing the known environmental and historic data, we can summarize the following points:

- The Daniel Lord shipyard and residence may be located nearby the study area according to New York State Historic Preservation records and the Shelter Island Historical Society.

- A New York State Education site marker marks the property south of the study area as the 19th century shipyard and residence of the Lord family. However, previous archaeological work on this same parcel yielded no definitive results.

- No structures are located on, or adjacent to, the study area according to historic maps.

In our opinion, the study area has a higher than average potential for the recovery of historic sites. The type of site encountered would most likely be associated with the Lord shipyard.

FIELD METHODS

Walkover-Reconnaissance

The study property was subjected to a walkover-reconnaissance. Covered ground terrain was reconnoitered at about 10 meter intervals, or less, for any above ground features, such as berms or depressions, which might be evidenced for a prehistoric or historic site. Exposed ground surfaces was also walked over, but at shoulder width transects to observe for artifacts. Photographs were taken of the project area, general work in progress.

Shovel Testing

Shovel test pits were excavated at 10 meter intervals on average across the project property. Shovel test pit intervals were paced apart. Each shovel test pit measured about 30 to 40 cm. in diameter and was dug into the underlying subsoil (B horizon) 10 to 20 cm. or more when possible. All soils were screened through 1/4 inch wire mesh and observed for artifacts. Shovel test pits were flagged in the field. All shovel test pits were mapped on the project area map at this time.

Soil stratigraphy was recorded according to texture and color. Soil color was matched against the Munsell color chart for soils. Notes were transcribed in a note book.

FIELD RESULTS

Field testing of the project area consisted of the excavation of 20 shovel test pits. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered.

Stratigraphy

General stratigraphy across the project area consisted of the following:

O horizon - 0 to 5 cm. of root mat, humus and leaf litter in forested areas or sod in grassy fields.

A horizon - 4 to 20 cm. thick of 10YR4/4 dark yellow brown or 10YR4/3 brown sandy loam or loamy sand.

B horizon - 10 to 20 cm. dug into of 10YR5/6 yellow brown sandy loam or loamy sand.

CONCLUSIONS AND RECOMMENDATIONS

The Phase IA documentary study had assessed the study area with a higher than average potential for the recovery of prehistoric and historic archaeological sites. In sum, this was because of the proximity of the property to another prehistoric and historic sites as well as to a tidal inlet.

During the course of the Phase IB survey, no prehistoric artifacts or features were encountered. No historic artifacts or features were encountered. No further archaeological work is recommended.

BIBLIOGRAPHY

- Bailey, Paul
1949 *Long Island: The Story of Two Great Counties, Nassau and Suffolk*, Volume 1. Lewis Historical Publishing Company, New York.
- Bayles, Richard M.
1962 *Historical and Descriptive Sketches of Suffolk County*. Empire State Historical Publishing Company XVIII.
- Cammisa, Alfred
1984 A Comparison of Settlement Patterns and General Land Use Between the Native Americans and the English Settlers in Southern New England in the Seventeenth Century, in *Bulletin of the Massachusetts Archaeological Society*, #45, Fall.
- Cammisa, Alfred G. with William Sandy, Cheryl Claassan and Felicia Burgos
1995 Archaeological Investigations at the Seaford Park Archaeological Site, in *Journal of the New York State Archaeological Association*, Fall, #110.
- Cammisa, Alfred G., William Goldsmith and Felicia Burgos Cammisa
1999 Archaeological Investigations at the McCauley Site, Strong's Neck, Long Island, in *Journal of the New York State Archaeological Association*, #115.
- Cammisa, Alfred G., Nancy Stehling, Felicia B. Cammisa
1998 *Phase I Archaeological Investigations, for the Mareneck property, Town of Shelter Island, Suffolk County, New York*. TRACKER-Archaeology Services #42. Ms. on file, NYSHPO.
- Cammisa, Alfred G. and Felicia Cammisa
2002 *Phase I Archaeological Investigations for the Galasso Property Township of Shelter Island Suffolk County, New York*. TRACKER-Archaeology Services, Inc. #162. Ms. on file with NYSHPO.
- Duvall, Ralph G.
1952 *History of Shelter Island 1652-1952*. Shelter Island Heights, New York.
- Kricher, John C. and Gordon Morison

- 1988 *The Peterson Field Guide Series: Eastern Forests of North America.* Houghton Mifflin Company, Boston.
- Lightfoot, Kent
- 1985 Coastal New York Settlement Patterns: A Perspective from Shelter Island, in *Man in the Northeast*, Number 30, Fall.
- Loper, Lilian T., Town Historian and first director of the Shelter Island Historic Society
- nd Research paper on Menantic Farm, available in Shelter Island Historic Society.
- Price, Cynthia R.
- 1979 19th Century Ceramics in the Eastern Ozark Region, in *Monograph Series Number 1.* Center For Archaeological Research, Southwest Missouri State University, Springfield, Missouri.
- Ross, Peter
- 1903 *History of Long Island*, Volume 1. The Lewis Historical Publishing Company, New York.
- Schuberth, Christopher J.
- 1968 *The Geology of New York City and Environs.* New York: Natural History Press.
- Starace, Carl A.
- not dated *Historic Long Island.* Article in Shelter Island Historical Society received 1978.
- Stone-Levine, Gaynell
- 1980 Language and Conversion of the Long Island Indians, in *Language and Lore of the Long Island Indians-Readings in Long Island Archaeology and Ethnohistory*, Volume 4. Suffolk County Archaeological Association.
- Thompson, Benjamin Franklin
- 1918 *History of Long Island*, Volume 2. Ira J. Friedman, Inc. New York.
- Van Diver, Bradford B.
- 1985 *Roadside Geology of New York.* Missoula, Montana: Mountain Press Publishing Company.
- Warner, John W. Jr., W.E. Hana, R.J. Landry, J.P. Wulforst, J.A. Neeley, R.L. Holmes, and C.E. Rice
- 1975 *Soil Survey of Suffolk County, New York.* U.S.,

Department of Agriculture, Soil Conservation Service
in Cooperation with Cornell Agricultural Experimental
Station.

Newspaper Articles

Brewer, Gary

1972 The Reverend Daniel M. Lord, in *Shelter Island*
Reporter, Saturday, June 17, 1972.

Maps

Chace, Jay

1858 *Map of Suffolk County, Long Island, New York.*
 Philadelphia, New York.

Hyde and Company

1896 *Map of Long Island.* Brooklyn, New York: Hyde & Company.

1906 *Map of Long Island.* Brooklyn, New York: Hyde & Company.

Jensen, H.M. and J. Soren

1974 *Hydrogeology of Suffolk County, Long Island, New York.*
 U.S. Geologic Survey, Washington, D.C.

Stone, Gaynell

not dated *Map of Native Long Island.* Long Island Culture History
 Lab & Museum - Suffolk County Archaeological
 Association.

United States Coast Survey

1838 *Map of Shelter Island.* Map #69. United States Coast
 Survey.

United States Coast and Geodetic Survey

1888 *Shore Line of Shelter Island, New York.* Map #1572.
 United States Coast and Geodetic Survey.

United States Geologic Survey

1956 *Greenport, New York quadrangle, 7.5 minute series.*

APPENDIX 1



FIGURE 1

Location of the study area shown on a portion of the U.S.G.S. 7.5 minute series Greenport, NY quadrangle.



LOT AREA= 40,557 sq. ft.
AREA OF TIDAL WETLANDS = 6,605± SQ. FT.
ADJACENT AREA = 33,952± SQ. FT.

PROP. STRUCTURES
DWELLING 1933± SQ. FT.
POOL 560± SQ. FT.
DECK 760± SQ. FT.
POOL FILTER 9± SQ. FT.
TOTAL 3262± SQ. FT.

ADJACENT AREA
LOT COVERAGE

$\frac{3262 \text{ SQ. FT.}}{33,952 \text{ SQ. FT.}} = 9.6\%$

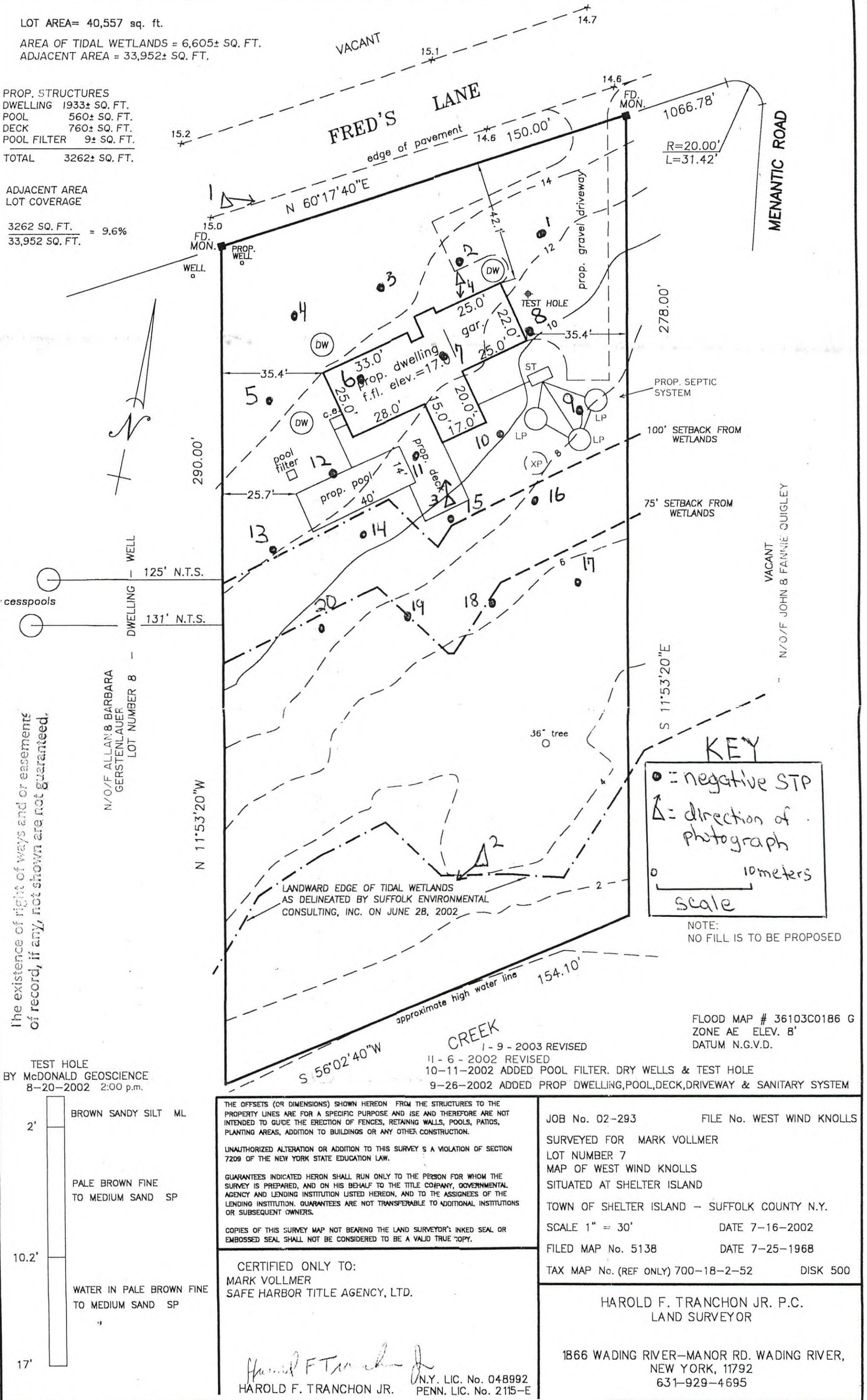


Figure 2 Location of the shovel test pits on the project area.



Figure 3

Portion of the 1838 U.S. Coast Survey.



Figure 4

Portion of the 1858 Chace map.

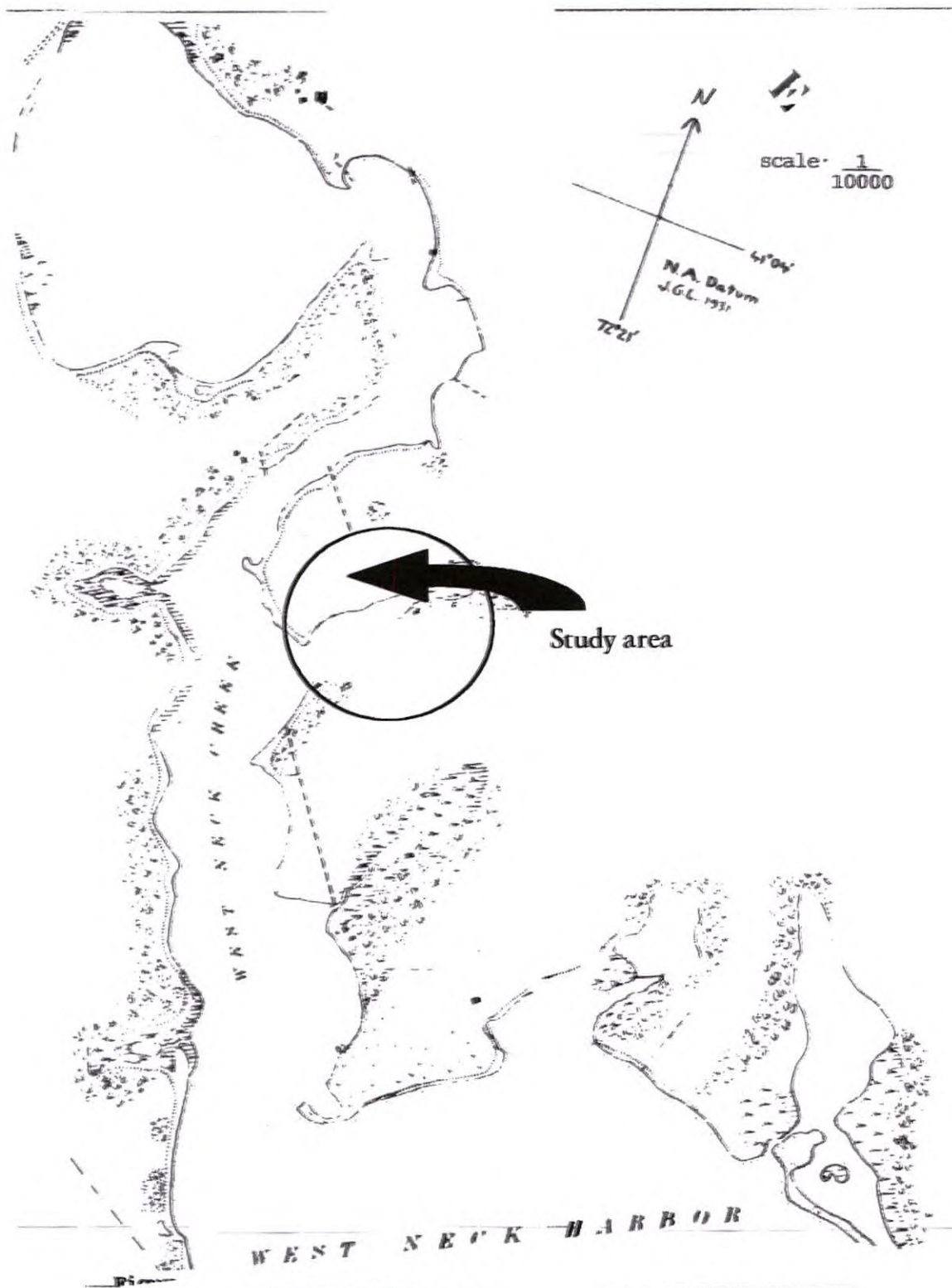


Figure 5

Portion of the 1888 U.S. Coast & Geodetic survey.

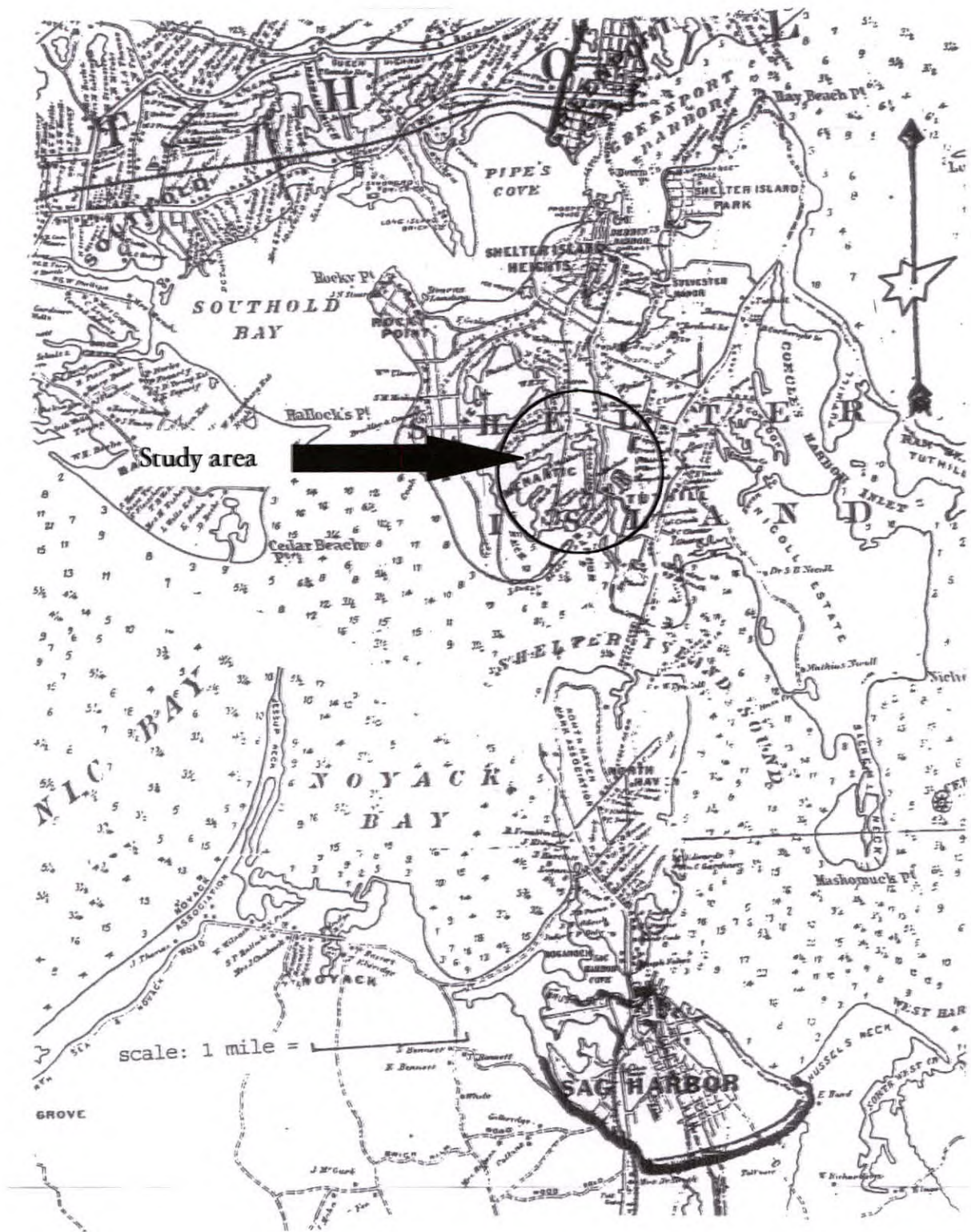


Figure 6

Portion of the 1896 Hyde atlas.

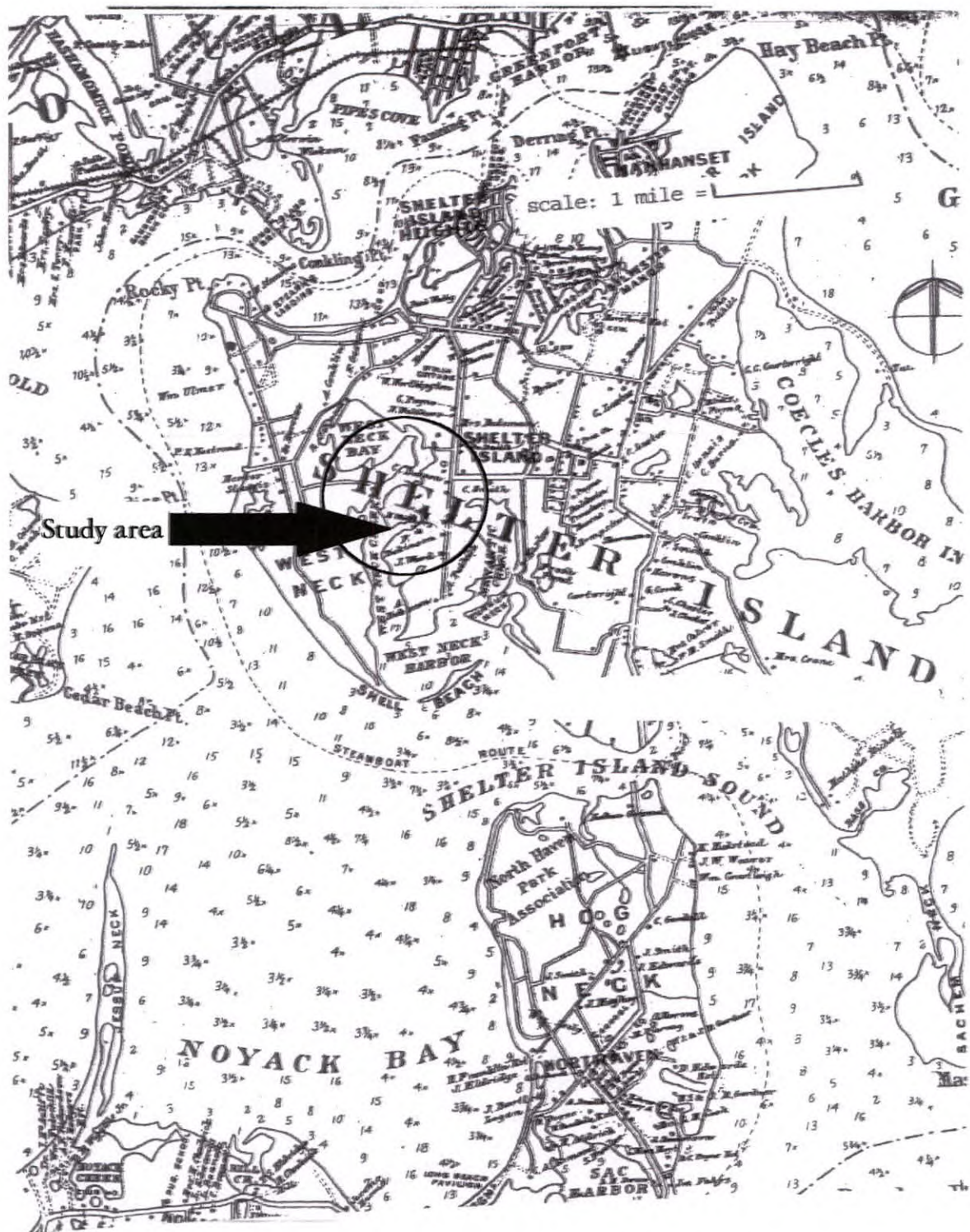


Figure 7

Portion of the 1906 Hyde atlas.



Plate 1

Looking east down Fred's Lane at study area.



Plate 2

Looking southwest at creek.



Plate 3

Looking north from STP 15.



Plate 4

Looking south from STP 2 down trail.

APPENDIX 2

Shovel Test Pits

<u>STP</u>	<u>Lv</u>	<u>Depth (cm)</u>	<u>Texture</u>	<u>Color</u>	<u>Hor.</u>	<u>Comments</u>
1	1	0-5	rootmat, leaves, humus		A/O	NCM
	2	5-23	Sandy Loam (SL)	10YR4/4	A	NCM
	3	23-35	SL	10YR5/6	B	NCM
2	1	0-4	rootmat, leaves, humus		A/O	NCM
	2	4-24	SL	10YR4/4	A	NCM
	3	24-36	SL	10YR5/6	B	NCM
3	1	0-0	rootmat, leaves, humus		A/O	NCM
	2	0-6	SL	10YR4/4	A	NCM
	3	6-27	SL	10YR5/6	B	NCM
4	1	0-0	rootmat, leaves, humus		A/O	NCM
	2	0-7	LS	10YR4/4	A	NCM
	3	7-30	LS	10YR5/6	B	NCM
5	1	0-2	rootmat, leaves, humus		A/O	NCM
	2	2-11	LS	10YR4/4	A	NCM
	3	11-23	LS	10YR5/6	B	NCM
6	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-13	LS	10YR4/3	A	NCM
	3	13-25	LS	10YR5/6	B	NCM
7	1	0-1	rootmat, leaves, humus		A/O	NCM
	2	1-9	LS	10YR4/4	A	NCM
	3	9-25	LS	10YR5/6	B	NCM
8	1	0-2	rootmat, leaves, humus		A/O	NCM
	2	2-18	LS	10YR4/4	A	NCM
	3	18-29	LS	10YR5/6	B	NCM
9	1	0-4	rootmat, leaves, humus		A/O	NCM
	2	4-9	LS	10YR4/4	A	NCM
	3	9-27	SL	10YR5/6	B	NCM
10	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-10	LS	10YR4/4	A	NCM
	3	10-30	SL	10YR5/6	B	NCM
11	1	0-3	rootmat, leaves, humus		A/O	NCM
		Impeded by roots				
12	1	0-2	rootmat, leaves, humus		A/O	NCM
	2	2-6	SL	10YR4/4	A	NCM
	3	6-19	SL	10YR5/6	B	NCM

13	1	0	rootmat, leaves, humus		A/O	NCM
	2	0-10	SL	10YR4/4	A	NCM
	3	10-27	SL	10YR5/6	B	NCM
14	1	0	rootmat, leaves, humus		A/O	NCM
	2	0-10	SL	10YR4/4	A	NCM
	3	10-30	SL	10YR5/6	B	NCM
15	1	0-2	rootmat, leaves, humus		A/O	NCM
	2	2-14	SL	10YR4/4	A	NCM
	3	14-27	SL	10YR5/6	B	NCM
16	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-15	SL	10YR4/4	A	NCM
	3	15-30	SL	10YR5/6	B	NCM
17	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-23	SL	10YR4/4	A	NCM
	3	23-35	SL	10YR5/6	B	NCM
18	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-10	LS	10YR4/4	A	NCM
	3	10-20	LS	10YR5/6	B	NCM
19	1	0-2	rootmat, leaves, humus		A/O	NCM
	2	2-7	LS	10YR4/4	A	NCM
	3	7-19	LS	10YR5/6	B	NCM
20	1	0-3	rootmat, leaves, humus		A/O	NCM
	2	3-10	LS	10YR4/4	A	NCM
	3	10-20	LS	10YR5/6	B	NCM