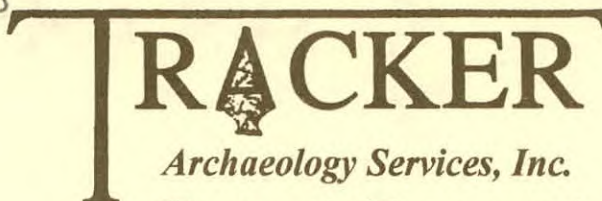


892 SUFFOLK

ID8620



Archaeology Services, Inc.

Tracking the Footsteps of the Ancestors



REPORTS OF INVESTIGATIONS

The Bittner 2 Site:
Phase II Archaeological Intensive Testing
At Wards Point
Town of Shelter Island, Suffolk County, New York

October 2008

*Phase I NOT Received
at OPRHP AS OF NOV. 25, 2008*

Prepared for:

Fleming & Darrell PLLC, East Hampton, New York
American Direct, LLC, New York, new York

Prepared by:

Alfred G. Cammisa, RPA
Felicia Cammisa, Alexander Padilla

Report #: 597

TRACKER ARCHAEOLOGY SERVICES, INC.

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08PR-5974

MANAGEMENT SUMMARY

PR#:

none known

Involved agencies:

NYDEC

Town of Shelter Island

Phase:

Phase II

Location:

Wards Point

Town of Shelter Island

Suffolk County

Survey Area:

Length: about 625 feet (190 meters) east-west

Width: about 400 feet (122 m) north-south.

Acres Surveyed: about 7.5 acre (3 hectares), inclusive with buffer area

Square Meters/Feet excavated: 12 sq. meters plus ST's

USGS:

Greenport, NY

Survey overview:

ST No. & interval: 154 at 50-25 ft. (15-7.5m) intervals

TU size & No.: 12, one meter square TU's

Width of Plowed strips: na

Surface Survey Transect Interval: na

Results:

Diagnostic points from late Archaic and possible Adena

6 small loci in plow zone

Potential research value

Results of Architectural Survey:

No. Of buildings/structures/cemeteries in project area: 4

No. Of buildings/structures/cemeteries adjacent to project area: 3

No. Of previously determined NR listed or eligible

buildings/structures/cemeteries/districts: 2

No. Of identified eligible buildings/structures/cemeteries/districts: none

Authors:

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Felicia Cammisa, B.A.

Alexande Padilla, B.A.

Date of Report:

Report completed October, 2008

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INTRODUCTION

Between August 7 and 11, 2008, TRACKER-Archaeology Services, Inc. conducted a Phase II intensive testing of the Bittner 2 Site at Wards Point - Lot 4 on Shelter Island, Town of Shelter Island, Suffolk County, New York. The purpose of the investigation was to interpret the site and to determine its significance for inclusion to State or National Historic Registers.

The project area consists of the entire 7.5 acre property exclusive of buffers around the bluffs and beach. The property is bordered to the north by Shorewood Court and private properties, to the south and west by the Shelter Island Sound, and to the east by other private property.

During the course of the current Phase I and II intensive testing, 214 artifacts were recovered. The artifacts consisted of lithics and included primary, secondary and tertiary flakes, shatter, bifaces, hammerstones, spokeshave, netsinker, utilized flake, points, and fire cracked rock. Diagnostic points included Wading River/ Squibnocket, Lamoka/Wading River, and 1 Adena-like biface.

The Bittner 2 Site appears to represent minimally, a recurrent procurement/processing camp for hunters and gatherers (of fish). The site appears to have been occupied during the Late Archaic Period and possibly Early Woodland.

The Phase II intensive testing of the Bittner 2 Site was conducted by TRACKER-Archaeology Services, Inc. of Monroe, New York. The Principal Investigator was Alfred G. Cammisa, M.A./RPA. Phase II field work was assisted by field director Alexander Padilla, B.A., crew chief Michael Barrett, B.A. and field technicians Alexander D'Amico, B.A. and Sarah Roberts, M.A. (expected 2008). Lithic analysis by Joseph Diamond, PhD. Report preparation was by Alfred Cammisa, Felicia Cammisa, B.A., and Alexander Padilla.

The study was completed for Fleming & Darrell PLLC, Attorneys at Law of East Hampton, New York and American Direct, LLC, New York, New York.

PREVIOUS WORK

Between July 31 and August 18, 2000, TRACKER-Archaeology Services had conducted a Phase IA documentary study and a Phase IB archaeological survey for the proposed subdivision at Wards Neck, Township of Shelter Island, Suffolk County, New York. At this time the property consisted of about 16 acres with bluffs and

beach, and was proposed to be subdivided into 6 lots.

The Phase IA determined the property had a high potential for the recovery of both prehistoric and historic archaeological sites. The property was part of the historic late nineteenth to early twentieth century Artemas Ward estate. In addition, the prehistoric Bittner Site was reported on or adjacent to the property as was the ACP #18 site. The Bittner Site had consisted of a shell midden in a bog-like area and was heavily pot-hunter. The ACP Site consisted of a burial site.

The Phase IB consisted of the excavated of 211 shovel tests at 15 meter intervals across the property. A prehistoric site was encountered on Lot 4, the current project area. The site consisted of 5 surface finds and 18 positive ST's. Artifacts included 46 pieces of debitage and 10 FCR.

The conclusions were that a Phase II be conducted on Lot 4 prior to any ground disturbance.

(from Cammisa 2001).

RESEARCH QUESTIONS

-What is the temporal affiliation of this site?
Diagnostic points or pottery can solve this question.

-What activities are present on site?
Identifying artifacts and associated tasks will answer this question.

-What intrasite patterns can be established?
Spatial analysis of the site, by first identifying and then interpreting activity areas, such as artifact concentrations and features by stratum, will answer this.

-Can site seasonality be determined?
Flotable features could possibly identify seasonality.

-How does this site fit into the local and/or regional settlement patterns?
A comparison of other well documented sites in the vicinity will provide insight here.

-Does the Bittner 2 Site have research value to make it potentially eligible for nomination to the National or State Registers of Historic Places? Criteria needed to assist in this determination include:

1) Site integrity, including the depth and extent of undisturbed soil horizons and the presence or absence of cultural features and the degree of natural and/or human disturbance to those features.

2) Cultural components/affiliations and time range present.

3) Vertical (stratigraphy) and horizontal (spatial) distribution of the archaeological remains.

4) Site interpretation should demonstrate any uniqueness or significance in a local or regional context.

FIELD METHODS

Phase II field methods consisted of the excavation of both shovel tests and test units:

Shovel Tests

A new Phase IB field survey was conducted since the original field testing was conducted 8 years ago and all the provenience flagging was gone. In addition, Phase II shovel testing was conducted at 25 foot intervals around positive Phase I ST's. This was to aid in determining both site density and site boundaries.

Test Units

Test units were placed primarily in areas of highest archaeological potential (artifact concentration and FCR occurrence). To a lesser degree, TU's were also placed in areas of lower potential. This was conducted to offer site variability across the landscape.

Test units measured 1 meter square. They were dug by natural stratigraphy. Excavation ceased at 10 cm. into culturally sterile subsoil. In addition, a 2 foot manual bucket auger was taken at the completion of certain TU's to inspect for any buried horizons.

Excavation of the 1 meter square TU's was accomplished manually with the use of shovel and trowels. Shovel technique utilized was the horizontal "skimming" method. Soil horizon interfaces or any potential features were troweled in an attempt to uncover cultural feature stains (pits, etc.). Elevations of stratigraphy were recorded with the use of a line level which was placed at 10 cm. above ground surface, usually in the southwest corner unless slope dictated a higher corner.

Soils were screened through a 1/4 inch wire mesh and analyzed for artifacts. Excavated soils were subjected to 100% screening. Stratigraphic profiles were mapped for TU's. All artifacts were bagged by TU and level, provenienced, and returned to the laboratory for processing and analysis.

FIELD RESULTS

A total of 12 TU's and 154 ST's were conducted as part of the Phase I re-field testing and Phase II intensive testing. Prehistoric artifacts were recovered in all TU's.

Shovel testing confirmed the following (Phase I) observations:

- 1) Site boundaries appear confined to the project area.
- 2) Six small artifact concentrations, or loci, were discerned.

Stratigraphy

Level 1, A/O horizon: 2 to 10 cm. thick of rootmat, humus, leaves.

Level 2: Ap horizon: 11 cm. to 28 of 10YR4/4 to 4/6 dark yellow brown, to 10YR4/3 brown, or 10YR3/3 dark brown, loamy sand.

Level 3: B horizon: about 10 or more cm. of excavated 10YR5/6-5/4 loamy sand subsoil. This level was culturally sterile except at TU 7, where an arbitrary level was used.

Excavation Units

TU's are organized by artifact concentrations (loci):

Locus 1 included TU's 3 and 12 which were placed here to test a low (artifact) density area. Shovel tests 16 and 106 produced a FCR and a hammerstone.

Locus 2 included TU's 4, 8, & 10 in a higher density area. Four positive ST's here produced flakes and a FCR.

Locus 3 included TU 9. Four positive ST's here, at the bluffs edge, produced flakes and a FCR.

Locus 4 included TU's 1 and 7. Four positive ST's here produced 2 FCR, flakes, & a spokeshave.

Locus 5 included TU 5. Three positive ST's here produced a netsinker, utilized flake, and flakes.

Locus 6 included TU's 2, 6, & 11 in a higher density area. Five positive ST's here produced flakes and a FCR.

Note: There appeared to be a series of meter squared old Test Units in the locus 6 area. The outlines of the old excavations were measured almost down to the meter. They were 2 meter by 2 meter square old excavations. Shovel probes were taken in 2 of these old excavations with mottled soils being produced below the grass sod which had grown back.

LABORATORY METHODS

Processing

The artifacts recovered and retained during the Phase II field work were transferred to TRACKER-Archaeology Services laboratory in Monroe, New York. The artifacts were washed in room temperature tap water. The drying procedure consisted of slow air drying. After cleaning, the artifacts were rebagged.

The archaeological remains were identified utilizing an altered version of the National Park Service Material Culture Data Base Taxonomy. Artifacts were indexed according to "function" and minimally included: functional group, class, morphology, and material.

Lithic Analysis

Methods used consisted of the investigation of flake attributes, raw material variety and the weighing of artifacts. Analysis was, for the most part, conducted macroscopically (with the naked eye). The use of a hand lens or microscope was also used in some instances for determining use-wear versus retouch, mineral composition and some general analysis. Calculations were in grams.

LABORATORY RESULTS

The 2008 Phase I and II investigations of the Bittner 2 Site resulted in the recovery of 214 prehistoric artifacts. All were lithic. The exact type of artifact and its location are listed in appendix 3 (inventory).

LITHIC ANALYSIS

A total of 214 lithic artifacts were recovered. They are described as follows:

Debitage

Total Debitage (% of total assemblage)	primary flakes (% of debitage)	secondary flakes (% of debitage)	tertiary flakes (% of debitage)	shatter (% of debitage)
143 (67%)	45 (31.5%)	25 (17.5%)	65 (45.5%)	8 (5.5%)

Tools

Tools (% of total)	Bifaces (% of tools)	Spokeshave (% of tools)	Utilized Flakes (% of tools)
14 (6.5%)	6 (43%)	1 (7.25%)	1 (7.25%)

Points (% of tools)	Netsinker (% of tools)	Hammerstones (% of tools)
3 (21.5%)	1 (7.25%)	2 (15%)

Fire Cracked Rock (FCR)

Fifty seven fire cracked rock was recovered representing about 27% of the total assemblage.

Material

Material	Count (% of lithics)	Artifact Type
quartz	48 (22.5%)	4 FCR, 3 bifaces, 1 point, all debitage
quartzite	153 (73.5%)	FCR, points, biface, hammerstone, spokeshave, utilized flake
sandstone	7 (3.25%)	5 FCR, hammerstone, netsinker
chert	1 (.5%)	flake

Artifacts per TU

TU	Count	Artifact Types	Locus
1	9	6 FCR, primary flakes, shatter	4
2	6	2 FCR, secondary & tertiary flakes	6
3	8	1 biface, all flakes	1
4	21	1 FCR, 2 bifaces, 1 point, all flakes	2

5	2	2 tertiary flakes	5
6	30	15 FCR, hammerstone, 1 clamshell, primary & tertiary flakes	6
7	20	2 FCR, all flakes	4
8	39	17 FCR, biface/point, Wading River/Squibnock point, tertiary & primary flakes, shatter	2
9	8	primary & tertiary flakes	3
10	14	Lamoka/Wading River point, 6 FCR, primary & secondary flakes	2
11	19	1 FCR, 1 biface/Adena point, all debitage	6
12	7	1 biface, 1 FCR, primary flakes	1

Artifacts by Lv.

Level	Count	Artifact Type
1	1	FCR
2	208	all tools, FCR, all debitage
3	5	flakes

CULTURAL INTERPRETATIONS

The Bittner 2 Site appears to represent minimally, a recurrent procurement/processing camp for hunters and gatherers (of fish). The site appears to have been occupied during the Late Archaic Period and possibly Early Woodland. Temporal affiliations are suggested by a Wading River/Squibnock point, a Lamoka/Wading River point, and an Adena-like biface.

Activities at the site appear to have included:

- Hunting as evidenced by 3 points,
- Butchering/Hide processing as evidenced by 6 bifaces and 1 utilized flake.
- Stone tool manufacturing (1st stages of lithic reduction) as witnessed by 1 core, a large(r) hammerstone, and 45 primary flakes.
- Stone tool manufacturing (last stage of lithic reduction) as evidenced by 65 tertiary flakes, a small hammerstone, and bifaces.
- Gathering as evidenced by netsinker for fish or shell fish. This item was made of sandstone and had 2 small holes punched in on 1 side of the artifact.
- Food processing (Cooking) as evidenced by 57 fire cracked rock . Most of the raw material used as FCR was either quartzite or sandstone.

-Woodworking (arrow making, ect.) with a spokeshave.

Spatial analysis appear to have delineated some intrasite patterns:

Spatial analysis is suspect to a loss of spatial integrity resulting from past plowing of the property. Six small artifact concentrations were noted:

Locus 1: TU's 3 and 12 recovered a low artifact density range of 7 to 8 artifacts including 1 FCR, 2 bifaces, and all reduction flakes. In addition, ST's here produced a hammerstone. This area appears to be a procurement/processing camp for tool making and possibly hunting or butchering.

Locus 2: TU's 4, 8, and 10 produced the highest artifact density range on site of 14 to 39 artifacts per TU, including 24 FCR, 3 points, 3 bifaces, and the whole range of debitage. Two of the points are affiliated with the Late Archaic Period. This appears to be a hunting and butchering/hide processing camp with tool making.

Locus 3: TU 9 had a density of 8 artifacts and included primary and tertiary flakes. In addition, ST's here produced a FCR. This low activity area is some kind of camp (FCR) for tool making at least.

Locus 4: TU's 1 and 7 produced a density range between 9 and 20 artifacts per TU with 8 FCR and the whole range of debitage. In addition, a ST here produce a spokeshave. This also seems to be a procurement/processing camp with tool making which likely included arrow making.

Locus 5: TU 5 had the lowest TU density on site with only 2 artifacts which included 2 tertiary flakes. However, ST's here recovered a netsinker and a utilized flake. This small procurement/processing station (no FCR) apparently was geared to gathering of fish or shell fish and processing them (utilized flake).

Locus 6: TU's 2, 6, and 11 produced a higher density range of 6 to 30 artifacts per TU with 18 FCR, a hammerstone, the full range of flakes, and an Adena-like biface. This camp also appears to be for procurement and processing of stone tools and hunting/butchering.

Stratigraphically:

Stratigraphically, this site is a plow zone site. Virtually all of the artifacts came from the plow zone. Only 5 flakes came from the subsoil in 1 TU (7). Despite a large number, proportionately, of fire cracked rock on site, no features have been encountered in the subsoil, beneath the plow zone.

Local Intersite Settlement Patterns

Previous professional archaeological investigations on Long Island have shown very little evidence for fishing procurement despite the area being an island. Netsinkers have been found on Fort Pond in Montauk along with an array of salt water fish bones in cooking pits (Cammisa et al in progress). The netsinker from Wards Point, however, was a small one and had holes on one side, unlike the larger, holeless, netsinkers from Fort Pond in Montauk.

Early Woodland pottery had been recovered in context with classical Late Archaic points (Lamoka, Popular, Island, etc.) on the Carroll Site in East Hampton. This site lies along the west bank of Three Mile Harbor, within a days canoe trip from the Bittner 2 site (Cammisa et al 1999).

The Bittner 2 site is likely associated with the adjacent Bittner Site which consisted of shell midden site in a marsh. The Bittner 2 may also be associated with the nearby ACP burial site.

CONCLUSIONS AND RECOMMENDATIONS

The Bittner 2 Site appears to represent minimally, a recurrent procurement/processing camp for hunters and gatherers (of fish). The site appears to have been occupied during the Late Archaic Period and possibly Early Woodland.

A site is eligible for nomination to the National Register of Historic Places if it meets one or more of the following criteria (as set forth in 9 NYCRR 427 and 428 or CRF 800):

- A) Associated with events that have made a significant contribution to the broad patterns of our history;
- B) Associated with the lives of persons significant in our past;
- C) Embodies the distinctive characteristics of a type, period, or method of construction, or represents a significant and distinguishable entity whose components may lack individual distinctions; or
- D) Has yielded, or may be likely to yield, information important in prehistory or history.

In our opinion, the Bittner 2 Site does have research value that would make it eligible for the historic registers for the following reasons:

-Diagnostic artifacts were recovered identifying a time range and cultural affiliation.

-Spatial analysis appears to indicate recurrent visits and different activity areas.

-Although no features were encountered, a relatively high percentage of FCR was encountered and features may still be present.

-There is also the possibility that the Bittner 2 site may be related to the ACP burial site.

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Maps

United States Geological Survey

1967 *Greenport, New York* quadrangle, 7.5 minute series.

APPENDIX 1



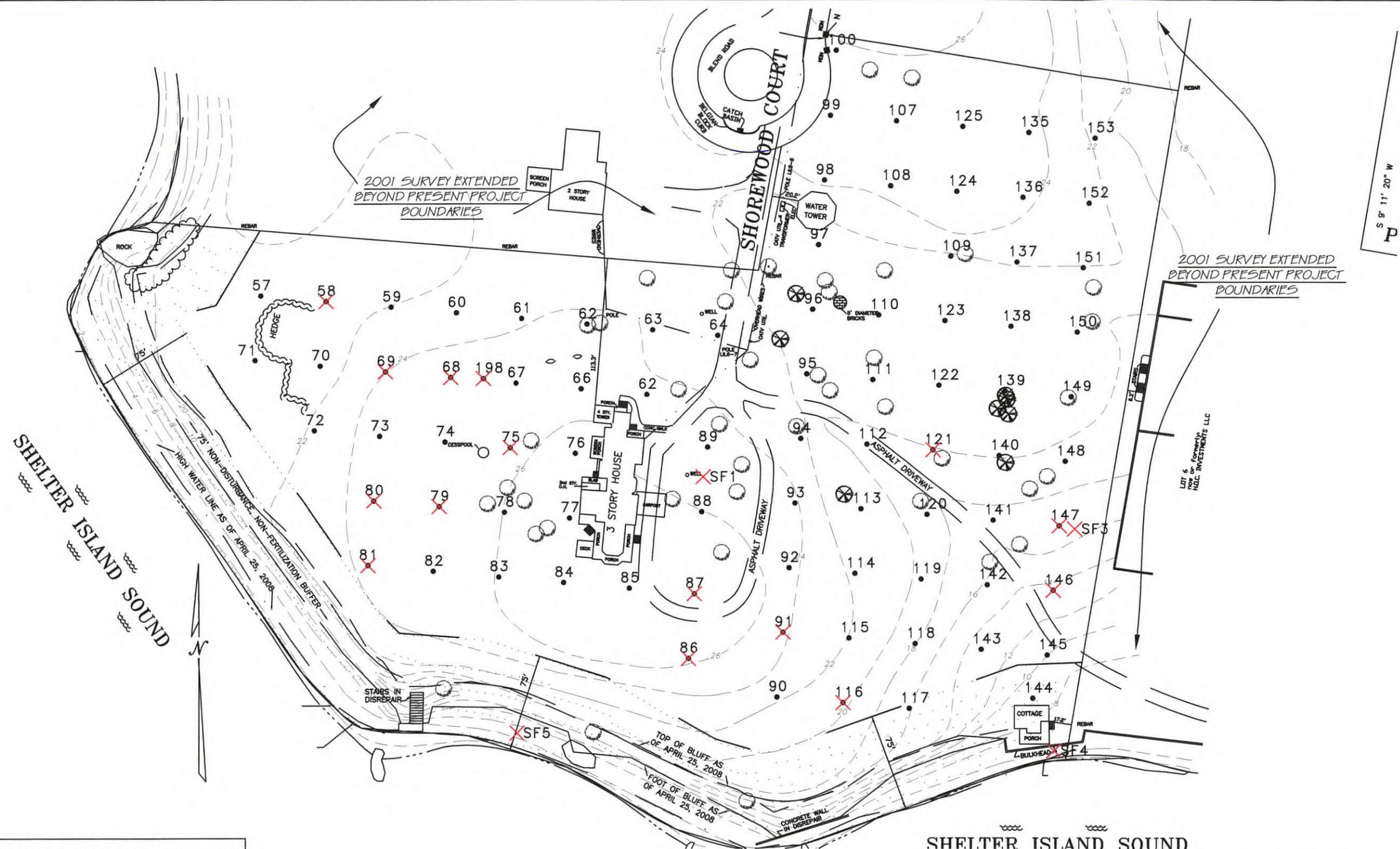
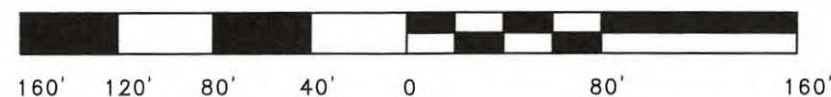


FIGURE 2: LOCATION OF 2001 PHASE 1 SHOVEL TESTS WITHIN PRESENT PROJECT AREA.

- ✕SF SURFACE FIND(S)
- ✕ POSITIVE SHOVEL TEST W/ PREHISTORIC ARTIFACTS
- NEGATIVE SHOVEL TEST

SCALE: 1 INCH = 80 FEET



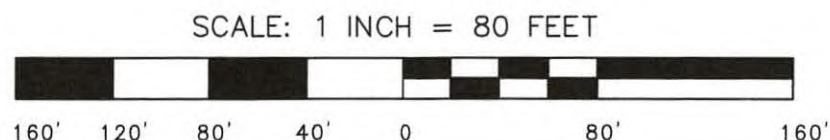
PROJECT NAME: WARDS POINT



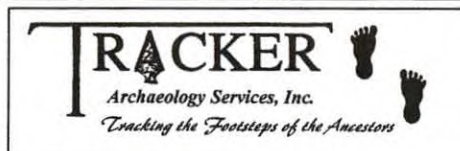


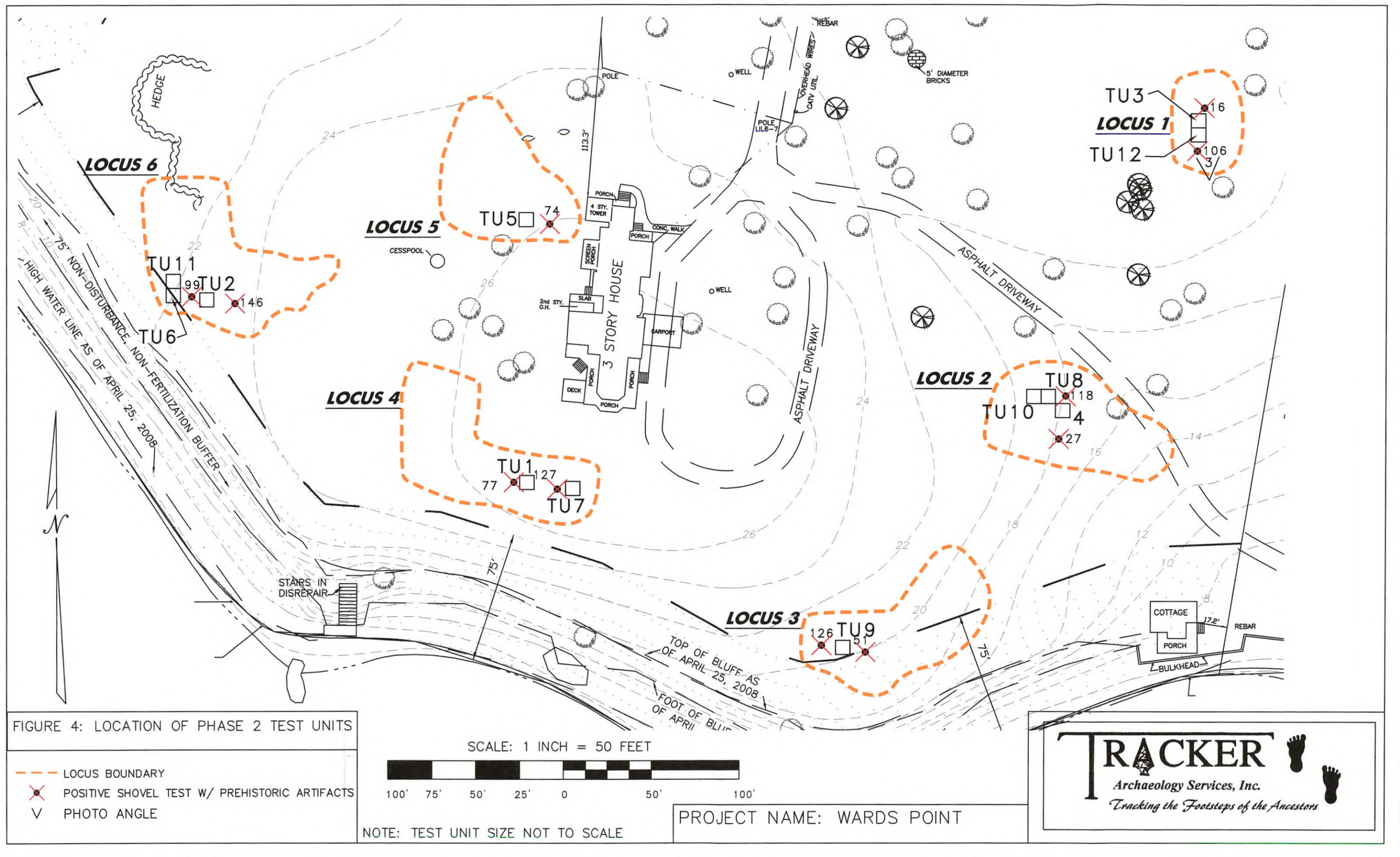
FIGURE 3: LOCATION OF CURRENT PHASE 1&2 ST'S

- ✓ PHOTO ANGLE
- LOCUS BOUNDARY
- ✕ POSITIVE SHOVEL TEST W/ PREHISTORIC ARTIFACTS
- NEGATIVE SHOVEL TEST



PROJECT NAME: WARDS POINT





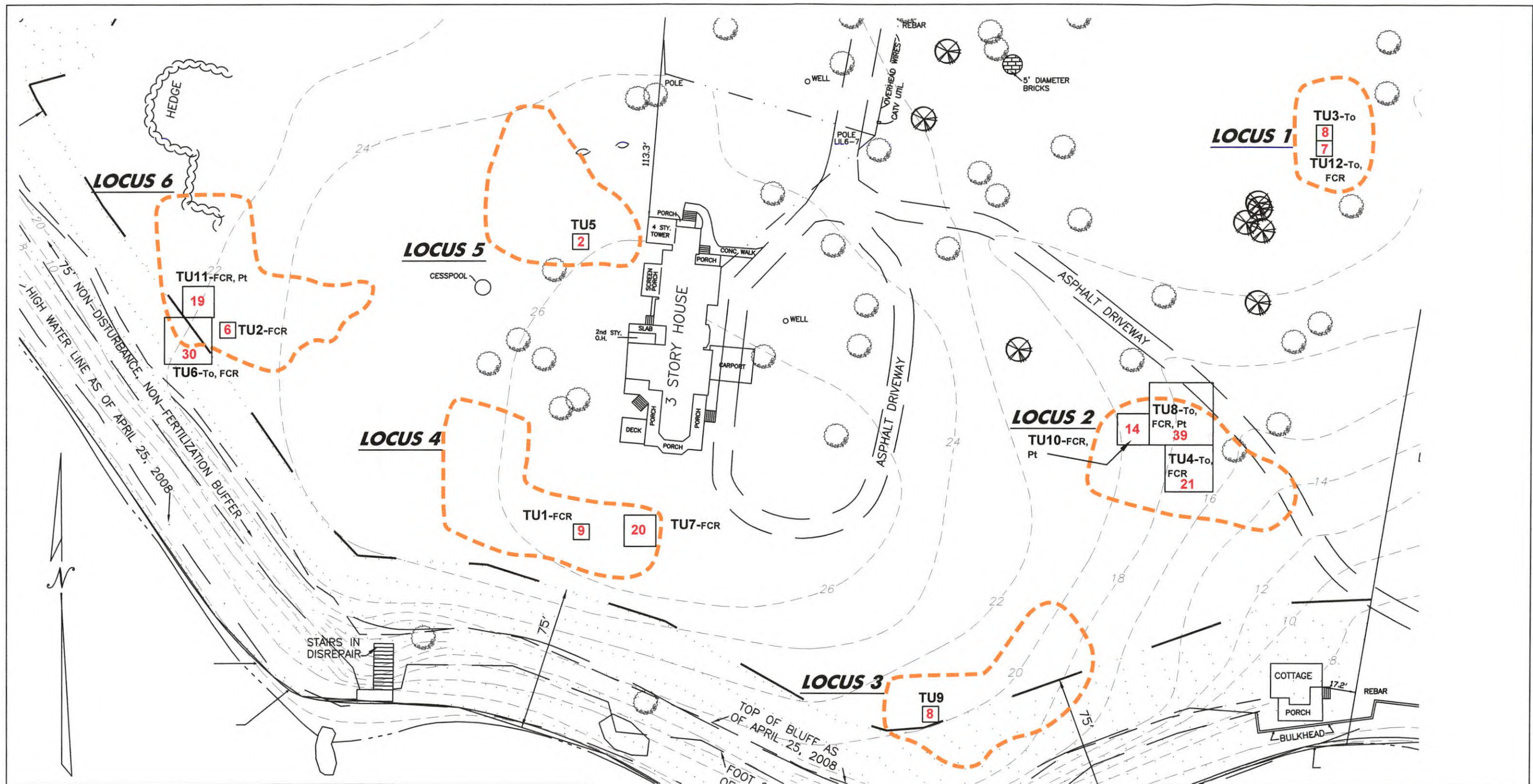


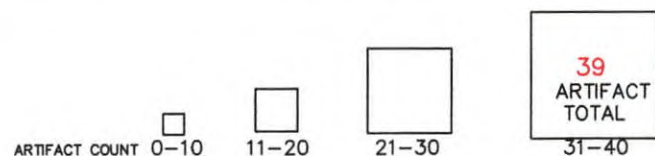
FIGURE 5: SITE DENSITY & DISTRIBUTION BASED ON TU's

--- LOCUS BOUNDARY

To TOOL(S)

FCR FIRE CRACKED ROCK(S)

Pt LATE ARCHAIC PROJECTILE POINTS



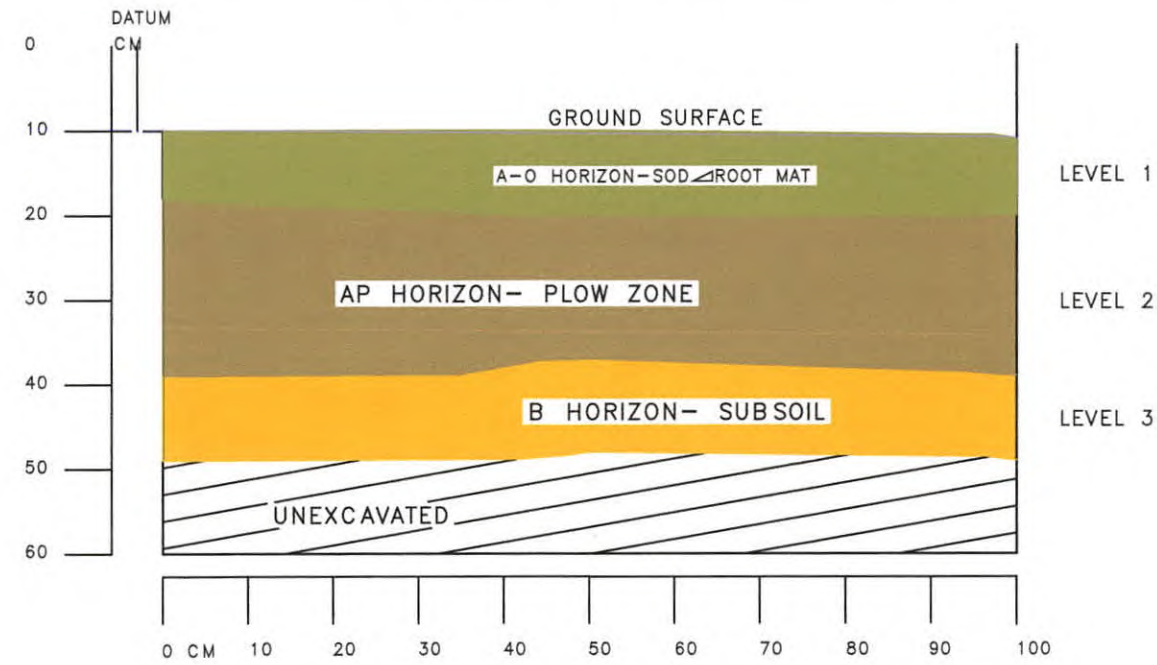
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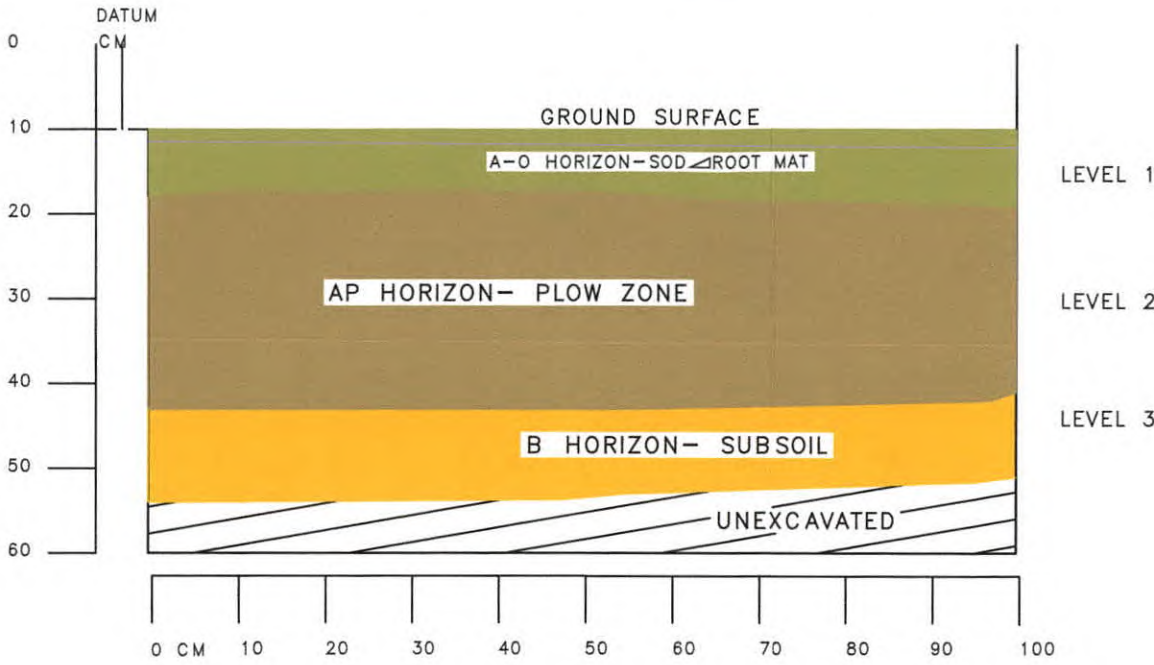
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SOUTH WALL PROFILE - TU 6



NORTH WALL PROFILE - TU4



NORTH WALL PROFILE - TU7

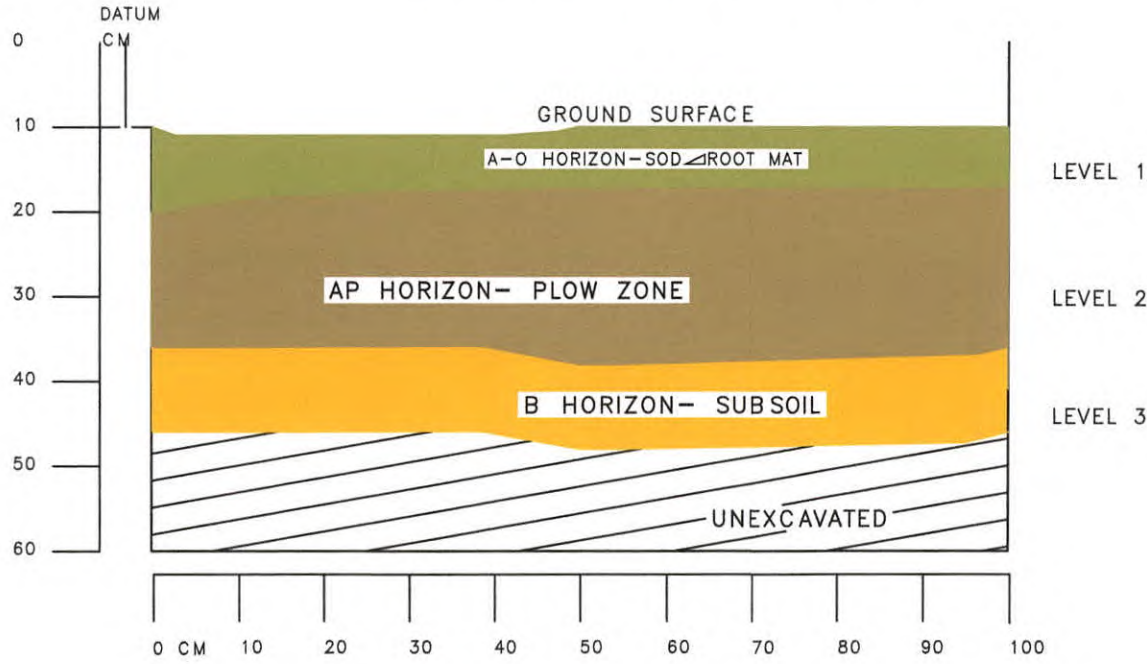


FIGURE 6: PROFILES OF TU4, 6&7
PROJECT NAME: WARDS POINT





Photo 1

Looking from bluff, near
ST 89, at project area



Photo 2

Looking at old unknown
TU's from ST 149



Photo 3

Work in progress at locus 1



Photo 4

TU 4, north wall

WARDS POINT
TU 6

Photo 5

TU 6, south wall



Photo 6

TU 7, north wall



Photo 7

Wading River/Squibnocket
point from TU 8



Photo 8

Lamoka/Wading River
point from TU 10



Photo 9

Adena-like biface
from TU 11



Photo 10

Netsinker from ST 74



Photo 11

Spokeshave from ST 77



Photo 12

Two bifaces & a point
from TU 4

APPENDIX 2

SHOVEL TESTS

<u>ST</u>	<u>LV</u>	<u>DEPTH (CM)</u>	<u>TEXTURE</u>		<u>COLOR</u>	<u>HOR</u>	<u>COMMENT</u>
1	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-25	Sandy Loam(LoSa)	10YR4/3	Ap		NCM
	3	25-40	LoSa	10YR5/6	B		NCM
2	1	0-6	rootmat,leaves,humus			A/O	NCM
	2	6-30	LoSa	10YR4/3	Ap		coal
	3	30-42	LoSa	10YR5/6	B		NCM
3	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-23	LoSa	10YR4/3	Ap		NCM
	3	23-35	LoSa	10YR5/6	B		NCM
4	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap		NCM
	3	28-39	LoSa	10YR5/6	B		NCM
5	1	0-5	rootmat,leaves,humus			A/O	NCM
	2	5-19	LoSa	10YR4/3	Ap		NCM
	3	.19-rocks.					
6	1.	0-5	rootmat,leaves,humus			A/O	NCM
	2	5-22	LoSa	10YR4/3	Ap		NCM
	3	22-35	LoSa	10YR5/6	B		NCM
7	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-17	LoSa	10YR4/3	Ap		NCM
	3	17-35	LoSa	10YR5/6	B		NCM
8	1	0-5	rootmat,leaves,humus			A/O	NCM
	2	5-29	LoSa	10YR4/3	Ap		NCM
	3	29-43	LoSa	10YR5/6	B		NCM
9	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-34	LoSa	10YR4/3	Ap		NCM
	3	34-45	LoSa	10YR5/6	B		NCM
10	1	0-4	rootmat,leaves,humus			A/O	NCM
	2	4-27	LoSa	10YR4/3	Ap		NCM
	3	27-43	LoSa	10YR5/6	B		NCM
11	1	0-5	rootmat,leaves,humus			A/O	NCM
	2	5-29	LoSa	10YR4/3	Ap		NCM
	3	29-40	LoSa	10YR5/6	B		NCM
12	1	0-3	rootmat,leaves,humus			A/O	NCM
	2	3-26	LoSa	10YR4/3	Ap		flake
	3	26-37	LoSa	10YR5/6	B		NCM

13	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-35	LoSa	10YR4/3	Ap	NCM
	3	35-47	LoSa	10YR5/6	B	NCM
14	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-30	LoSa	10YR4/3	Ap	NCM
	3	30-43	LoSa	10YR5/6	B	NCM
15	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-30	LoSa	10YR4/3	Ap	coal
	3	30-42	LoSa	10YR5/6	B	NCM
16	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-32	LoSa	10YR4/3	Ap	for
	3	32-45	LoSa	10YR5/6	B	NCM
17	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-30	LoSa	10YR4/3	Ap	NCM
	3	30-43	LoSa	10YR5/6	B	NCM
18	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-27	LoSa	10YR4/3	Ap	coal,glass
	3	27-43	LoSa	10YR5/6	B	NCM
19	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-24	LoSa	10YR4/3	Ap	mod. bottle glass
	3	24-35	LoSa	10YR5/6	B	NCM
20	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap	NCM
	3	28-39	LoSa	10YR5/6	B	NCM
21	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-31	LoSa	10YR4/3	Ap	NCM
	3	31-42	LoSa	10YR5/6	B	NCM
22	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-30	LoSa	10YR4/3	Ap	NCM
	3	30-42	LoSa	10YR5/6	B	NCM
23	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-16	LoSa	10YR4/3	Ap	NCM
	3	16-27	LoSa	10YR5/6	B	NCM
24	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-12	LoSa	10YR4/3	Ap	coal,charcoal
	3	12-25	LoSa	10YR5/6	B	NCM
25	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	LoSa	10YR4/3	Ap	NCM
	3	26-30	LoSa	10YR5/6	B	NCM
26	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-10	LoSa	10YR4/3	Ap	NCM
	3	10-21	LoSa	10YR5/6	B	NCM

27	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-15	LoSa	10YR4/3	Ap	flake
	3	15-27	LoSa	10YR5/6	B	NCM
28	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-18	LoSa	10YR4/3	Ap	NCM
	3	18-30	LoSa	10YR5/6	B	NCM
29	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap	NCM
	3	28-39	LoSa	10YR5/6	B	NCM
30	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-29	LoSa	10YR4/3	Ap	NCM
	3	29-39	LoSa	10YR5/6	B	NCM
31	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-30	LoSa	10YR4/3	Ap	shatter
	3	30-43	LoSa	10YR5/6	B	NCM
32	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-21	LoSa	10YR4/3	Ap	NCM
	3	21-31	LoSa	10YR5/6	B	NCM
33	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-32	LoSa	10YR4/3	Ap	NCM
	3	32-44	LoSa	10YR5/6	B	NCM
34	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-30-42	LoSa	10YR4/3	Ap	NCM
	3	18-28	LoSa	10YR5/6	B	NCM
35	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-27	LoSa	10YR4/3	Ap	NCM
	3	27-39	LoSa	10YR5/6	B	NCM
36	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-34	LoSa	10YR4/3	Ap	NCM
	3	34-45	LoSa	10YR5/6	B	NCM
37	2	0-27	LoSa	10YR4/3	Ap	NCM
	3	27-37	LoSa	10YR5/6	B	NCM
38	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-31	LoSa	10YR4/3	Ap	NCM
	3	31-43	LoSa	10YR5/6	B	NCM
39	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	LoSa	10YR4/3	Ap	coal
	3	28-38	LoSa	10YR5/6	B	NCM
40	2	0-20	LoSa	10YR4/3	Ap	NCM
	3	20-32	LoSa	10YR5/6	B	NCM

41	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	31-6	LoSa	10YR4/3	Ap	NCM
	3	16-29	LoSa	10YR5/6	B	NCM
42	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-29	LoSa	10YR4/3	Ap	NCM
	3	29-39	LoSa	10YR5/6	B	NCM
43	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	LoSa	10YR4/3	Ap	NCM
	3	25-37	LoSa	10YR5/6	B	NCM
44	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-27	LoSa	10YR4/3	Ap	NCM
	3	27-38	LoSa	10YR5/6	B	NCM
45	2	0-18	LoSa	10YR4/3	Ap	NCM
	3	18-20,roots	LoSa	10YR5/6	B	NCM
46	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-30	LoSa	10YR4/3	Ap	NCM
	3	30-42	LoSa	10YR5/6	B	NCM
47	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-16	LoSa	10YR4/3	Ap	NCM
	3	16-30	LoSa	10YR5/6	B	NCM
48	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-28	LoSa	10YR4/3	Ap	NCM
	3	28-38	LoSa	10YR5/6	B	NCM
49	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-18	LoSa	10YR4/3	Ap	NCM
	3	18-28	LoSa	10YR5/6	B	NCM
50	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-33	LoSa	10YR4/3	Ap	NCM
	3	33-43	LoSa	10YR5/6	B	NCM
51	1	0-8	rootmat,leaves,humus		A/O	NCM
	2	8-30	LoSa	10YR4/3	Ap	flake
	3	30-46	LoSa	10YR5/6	B	NCM
52	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-9	LoSa	10YR4/3	Ap	NCM
	3	9-28	LoSa	10YR5/6	B	NCM
53	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-14	LoSa	10YR4/3	Ap	NCM
	3	14-29	LoSa	10YR5/6	B	NCM
54	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-34	LoSa	10YR4/3	Ap	NCM
	3	34-45	LoSa	10YR5/6	B	NCM

55	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-34	LoSa	10YR4/3	Ap	NCM
	3	34-44	LoSa	10YR5/6	B	NCM
56	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-33	LoSa	10YR4/3	Ap	NCM
	3	33-44	LoSa	10YR5/6	B	NCM
57	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-29	LoSa	10YR4/3	Ap	NCM
	3	29-41	LoSa	10YR5/6	B	NCM
58	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-34	LoSa	10YR4/3	Ap	NCM
	3	34-45	LoSa	10YR5/6	B	NCM
59	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-35	LoSa	10YR4/3	Ap	scallop
	3	35-49	LoSa	10YR5/6	B	NCM
60	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-41	LoSa	10YR4/3	Ap	NCM
	3	41-53	LoSa	10YR5/6	B	NCM
61	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-31	LoSa	10YR4/3	Ap	NCM
	3	31-43	LoSa	10YR5/6	B	NCM
62	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-29	LoSa	10YR4/3	Ap	NCM
	3	29-40	LoSa	10YR5/6	B	NCM
63	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-29	LoSa	10YR4/3	Ap	NCM
	3	29-40	LoSa	10YR5/6	B	NCM
64	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-26	LoSa	10YR4/3	Ap	NCM
	3	26-39	LoSa	10YR5/6	B	NCM
65	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-18	LoSa	10YR4/3	Ap	NCM
	3	18-25,rocks	LoSa	10YR5/6	B	NCM
66	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-28	LoSa	10YR4/3	Ap	NCM
	3	28-42	LoSa	10YR5/6	B	NCM
67	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-26	LoSa	10YR4/3	Ap	NCM
	3	26-41	LoSa	10YR5/6	B	NCM
68	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-22	LoSa	10YR4/3	Ap	NCM
	3	22-28,rocks	LoSa	10YR5/6	B	NCM

69	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-12	LoSa	10YR4/3	Ap	metal,window glass
	3	12-27	LoSa	10YR5/6	B	NCM
70	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-14	LoSa	10YR4/3	Ap	NCM
	3	14-28	LoSa	10YR5/6	B	NCM
71	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-23	LoSa	10YR4/3	Ap	NCM
	3	23-34	LoSa	10YR5/6	B	NCM
72	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-22	LoSa	10YR4/3	Ap	NCM
	3	22-roots.				
73	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-33	LoSa	10YR4/3	Ap	NCM
	3	33-47	LoSa	10YR5/6	B	NCM
74	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	LoSa	10YR4/3	Ap	net sinker
	3	27-39	LoSa	10YR5/6	B	NCM
75	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-26	LoSa	10YR4/3	Ap	NCM
	3	26-43	LoSa	10YR5/6	B	NCM
76	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-30	LoSa	10YR4/3	Ap	NCM
	3	30-43	LoSa	10YR5/6	B	NCM
77	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-36	LoSa	10YR4/3	Ap	debitage
	3	36-47	LoSa	10YR5/6	B	NCM
78	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-31	LoSa	10YR4/3	Ap	metal bolt
	3	31-43	LoSa	10YR5/6	B	NCM
79	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-35	LoSa	10YR4/3	Ap	NCM
	3	35-47	LoSa	10YR5/6	B	NCM
80	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap	NCM
	3	28-39	LoSa	10YR5/6	B	NCM
81	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	LoSa	10YR4/3	Ap	flake
	3	28-40	LoSa	10YR5/6	B	NCM

82	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-31	LoSa	10YR4/3	Ap	NCM
	3	31-43	LoSa	10YR5/6	B	NCM
83	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-32	LoSa	10YR4/3	Ap	flake
	3	32-42	LoSa	10YR5/6	B	NCM
84	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap	flake
	3	28-40	LoSa	10YR5/6	B	NCM
85	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-24	LoSa	10YR4/3	Ap	NCM
	3	24-35	LoSa	10YR5/6	B	NCM
86	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-36	LoSa	10YR4/3	Ap	NCM
	3	36-47	LoSa	10YR5/6	B	NCM
87	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	LoSa	10YR4/3	Ap	NCM
	3	28-39	LoSa	10YR5/6	B	NCM
88	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	LoSa	10YR4/3	Ap	NCM
	3	27-39	LoSa	10YR5/6	B	NCM
89	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-30	LoSa	10YR4/3	Ap	NCM
	3	30-40	LoSa	10YR5/6	B	NCM
90	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-23	LoSa	10YR4/3	Ap	NCM
	3	23-37	LoSa	10YR5/6	B	NCM
91	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-33	LoSa	10YR4/3	Ap	NCM
	3	33-46	LoSa	10YR5/6	B	NCM
92	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-34	LoSa	10YR4/3	Ap	NCM
	3	34-48	LoSa	10YR5/6	B	NCM
93	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-29	LoSa	10YR4/3	Ap	NCM
	3	29-43	LoSa	10YR5/6	B	NCM
94	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	LoSa	10YR4/3	Ap	NCM
	3	28-38	LoSa	10YR5/6	B	NCM
95	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-29	LoSa	10YR4/3	Ap	NCM
	3	29-40	LoSa	10YR5/6	B	NCM

96	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-37	LoSa	10YR4/3	Ap	NCM
	3	37-47	LoSa	10YR5/6	B	NCM
97	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-34	LoSa	10YR4/3	Ap	NCM
	3	34-48	LoSa	10YR5/6	B	NCM
98	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-30	LoSa	10YR4/3	Ap	flake
	3	30-45	LoSa	10YR5/6	B	NCM
99	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-33	LoSa	10YR4/3	Ap	flake,for
	3	33-43	LoSa	10YR5/6	B	NCM
100	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-33	LoSa	10YR4/3	Ap	NCM
	3	33-47	LoSa	10YR5/6	B	NCM
101	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-28	LoSa	10YR4/3	Ap	NCM
	3	28-40	LoSa	10YR5/6	B	NCM
102	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-32	LoSa	10YR4/3	Ap	NCM
	3	32-44	LoSa	10YR5/6	B	NCM
103	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-23	LoSa	10YR4/3	Ap	flake
	3	23-33	LoSa	10YR5/6	B	NCM
104	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-23	LoSa	10YR4/3	Ap	NCM
	3	23-43	LoSa	10YR5/6	B	NCM
105	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-22	LoSa	10YR4/3	Ap	NCM
	3	22-35	LoSa	10YR5/6	B	NCM
106	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-30	LoSa	10YR4/3	Ap	flake
	3	30-41	LoSa	10YR5/6	B	NCM
107	2	0-8	LoSa	10YR4/3	Ap	NCM
	3	8-28	LoSa	10YR5/6	B	NCM
108	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-31	LoSa	10YR4/3	Ap	NCM
	3	31-43	LoSa	10YR5/6	B	NCM
109	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-24	LoSa	10YR4/3	Ap	NCM
	3	24-36	LoSa	10YR5/6	B	NCM

110	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-23	LoSa	10YR4/3	Ap	NCM
	3	23-35	LoSa	10YR5/6	B	NCM
111	1	0-1	rootmat,leaves,humus		A/O	NCM
	2	1-31	LoSa	10YR4/3	Ap	NCM
	3	31-42	LoSa	10YR5/6	B	NCM
112	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-29	LoSa	10YR4/3	Ap	NCM
	3	29-45	LoSa	10YR5/6	B	NCM
113	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-33	LoSa	10YR4/3	Ap	glass,brick
	3	33-43	LoSa	10YR5/6	B	NCM
114	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-30	LoSa	10YR4/3	Ap	NCM
	3	30-43	LoSa	10YR5/6	B	NCM
115	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-29	LoSa	10YR4/3	Ap	NCM
	3	29-41	LoSa	10YR5/6	B	NCM
116	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-32	LoSa	10YR4/3	Ap	round nail
	3	32-45	LoSa	10YR5/6	B	NCM
117	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-30	LoSa	10YR4/3	Ap	flake
	3	30-41	LoSa	10YR5/6	B	NCM
118	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-31	LoSa	10YR4/3	Ap	fer
	3	31-43	LoSa	10YR5/6	B	NCM
119	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	LoSa	10YR4/3	Ap	NCM
	3	27-40	LoSa	10YR5/6	B	NCM
120	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-34	LoSa	10YR4/3	Ap	NCM
	3	34-46	LoSa	10YR5/6	B	NCM
121	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-30	LoSa	10YR4/3	Ap	flake
	3	30-45	LoSa	10YR5/6	B	NCM
122	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-30	LoSa	10YR4/3	Ap	NCM
	3	30-44	LoSa	10YR5/6	B	NCM
123	1	0-1	rootmat,leaves,humus		A/O	NCM
	2	1-35	LoSa	10YR4/3	Ap	NCM
	3	35-45	LoSa	10YR5/6	B	NCM

124	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-25	LoSa	10YR4/3	Ap	NCM
	3	25-36	LoSa	10YR5/6	B	NCM
125	2	0-37	LoSa	10YR4/3	Ap	NCM
	3	37-52	LoSa	10YR5/6	B	NCM
126	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-32	LoSa	10YR4/3	Ap	flake
	3	32-45	LoSa	10YR5/6	B	NCM
127	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-29	LoSa	10YR4/3	Ap	flake
	3	29-44	LoSa	10YR5/6	B	NCM
128	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-34	LoSa	10YR4/3	Ap	NCM
	3	34-44	LoSa	10YR5/6	B	NCM
129	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-30	LoSa	10YR4/3	Ap	NCM
	3	30-40	LoSa	10YR5/6	B	NCM
130	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa	10YR4/3	Ap	NCM
	3	28-41	LoSa	10YR5/6	B	NCM
131	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-28	LoSa	10YR4/3	Ap	NCM
	3	28-44	LoSa	10YR5/6	B	NCM
132	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-29	LoSa	10YR4/3	Ap	NCM
	3	29-42	LoSa	10YR5/6	B	NCM
133	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-32	LoSa	10YR4/3	Ap	flake
	3	32-50	LoSa	10YR5/6	B	NCM
134	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-33	LoSa	10YR4/3	Ap	window glass
	3	33-45	LoSa	10YR5/6	B	NCM
135	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-50	LoSa	10YR4/3	Ap	stoneware
	3	50-60	LoSa	10YR5/6	B	NCM
136	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-21	LoSa	10YR4/3	Ap	NCM
	3	21-33	LoSa	10YR5/6	B	NCM
137	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	LoSa	10YR4/3	Ap	NCM
	3	27-40	LoSa	10YR5/6	B	NCM

138	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-27	LoSa	10YR4/3	Ap	NCM
	3	27-44	LoSa	10YR5/6	B	NCM
139	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-30	LoSa	10YR4/3	Ap	NCM
	3	30-43	LoSa	10YR5/6	B	NCM
140	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-37	LoSa	10YR4/3	Ap	NCM
	3	37-50	LoSa	10YR5/6	B	NCM
141	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-27	LoSa	10YR4/3	Ap	NCM
	3	27-44	LoSa	10YR5/6	B	NCM
142	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-28	LoSa	10YR4/3	Ap	NCM
	3	28-44	LoSa	10YR5/6	B	NCM
143	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-25	LoSa	10YR4/3	Ap	NCM
	3	25-30,rocks	LoSa	10YR5/6	B	NCM
144	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-27	LoSa	10YR4/3	Ap	NCM
	3	27-43	LoSa	10YR5/6	B	NCM
145	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-41	LoSa	10YR4/3	Ap	NCM
	3	41-53	LoSa	10YR5/6	B	NCM
146	1	0-1	rootmat,leaves,humus		A/O	NCM
	2	1-33	LoSa	10YR4/3	Ap	flake
	3	33-44	LoSa	10YR5/6	B	NCM
147	1	0-3	rootmat,leaves,humus		A/O	NCM
	2	3-27	LoSa	10YR4/3	Ap	NCM
	3	27-40	LoSa	10YR5/6	B	NCM
148	1	0-5	rootmat,leaves,humus		A/O	NCM
	2	5-31	LoSa	10YR4/3	Ap	NCM
	3	31-45	LoSa	10YR5/6	B	NCM
149	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-37	LoSa	10YR4/3	Ap	NCM
	3	37-44,rocks	LoSa	10YR5/6	B	NCM
150	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-31	LoSa	10YR4/3	Ap	NCM
	3	31-42	LoSa	10YR5/6	B	NCM
151	1	0-1	rootmat,leaves,humus		A/O	NCM
	2	1-35	LoSa	10YR4/3	Ap	NCM
	3	35-46	LoSa	10YR5/6	B	NCM

152	1	0-2	rootmat,leaves,humus		A/O	NCM
	2	2-33	LoSa		10YR4/3 Ap	NCM
	3	33-44	LoSa		10YR5/6 B	NCM
153	1	0-4	rootmat,leaves,humus		A/O	NCM
	2	4-28	LoSa		10YR4/3 Ap	NCM
	3	28-47	LoSa		10YR5/6 B	NCM
154	1	0-6	rootmat,leaves,humus		A/O	NCM
	2	6-28	LoSa		10YR4/3 Ap	flake,hematite
	3	28-39	LoSa		10YR5/6 B	NCM

TEST UNITS

TU	LV	NE	SE	NW	SW	CENT	TEXTURE	COLOR	HOR
1	1	10-15	13-17	13-16	10-17	12-16	rootmat		A/O
	2	15-42	17-40	16-37	17-38	16-41	LoSa	10YR4/4	Ap
	3	42-52	40-50	37-47	38-48	41-51	LoSa	10YR5/6	B
2	1	10-17	10-14	14-17	13-17	10-17	rootmat		A/O
	2	17-44	14-40	17-41	17-40	17-43	LoSa	10YR4/6	Ap
	3	44-55	40-54	41-55	40-54	43-54	LoSa	10YR5/6	B
3	1	11-17	11-19	10-15	10-13	12-14	rootmat		A/O
	2	17-40	19-32	15-36	13-37	14-38	LoSa	10YR4/4	Ap
	3	40-50	32-50	36-46	37-50	38-49	LoSa	10YR5/6	B
4	1	10-19	11-20	10-18	10-18	10-17	rootmat		A/O
	2	19-41	20-44	18-43	18-47	17-43	LoSa	10YR4/4	Ap
	3	41-52	44-55	43-54	47-57	43-53	LoSa	10YR5/6	B
5	1	14-18	12-15	16-18	12-16	14-15	rootmat		A/O
	2	18-29	15-30	18-32	16-33	15-33	LoSa	10YR4/3	Ap
	3	29-46	30-47	32-52	33-47	33-48	LoSa	10YR5/6	B
6	1	10-20	10-18	10-18	11-20	10-20	rootmat		A/O
	2	20-35	18-39	18-37	20-39	20-37	LoSa	10YR4/4-4/3	Ap
	3	35-48	39-49	37-47	39-49	37-48	LoSa	10YR5/6	B
7	1	10-17	11-15	11-20	14-18	10-17	rootmat		A/O
	2	17-36	15-36	20-36	18-38	17-38	LoSa	10YR3/3	Ap
	3a	36-46	36-46	36-46	38-48	38-48	LoSa	10YR5/6	B
	3b	46-60	46-60	46-59	48-59	48-58	LoSa	10YR5/6	B
8	1	11-18	16-20	10-16	12-19	12-18	rootmat		A/O
	2	18-41	20-42	16-40	19-38	18-41	LoSa	10YR4/3	Ap
	3	41-52	42-52	40-53	38-49	41-52	LoSa	10YR5/4	B
9	1	13-16	19-27	11-15	14-20	14-23	rootmat		A/O
	2	16-44	27-45	15-43	20-44	23-43	LoSa	10YR3/3	Ap
	3	44-54	45-55	43-53	44-55	43-55	LoSa	10YR5/4	B
10	1	7-11	8-12	2-7	3-7	5-7	rootmat		A/O
	2	11-32	12-30	7-24	7-26	7-28	LoSa	10YR4/3-44	Ap

	3	32-42	30-41	24-40	26-40	28-40	LoSa	10YR5/6	
11	1	8-14	10-14	12-19	10-16	10-15	rootmat		A/O
	2	14-32	14-30	19-39	16-38	15-34	LoSa	10YR3/3	Ap
	3	32-44	30-44	39-49	38-52	34-45	LoSa	10YR5/6	B
12	1	10-14	10-15	10-17	9-10	10-13	rootmat		A/O
	2	14-38	15-36	17-39	10-38	13-39	LoSa	10YR4/3	Ap
	3	38-48	36-49	39-49	38-49	39-49	LoSa	10YR5/6	B

APPENDIX 3

CAT	ST	TU	LV	GP	CL	MAT	MOR	COMMENT	WT	CT
1	12			10	3	53	27	primary	7.70	1.00
2	16			10	9	54		FCR, grey metaquartzite	82.90	1.00
3	27			10	3	54	29	tertiary	2.00	3.00
4	31			10	3	53	27	primary		2.00
5	51			10	3	54	29	tertiary	4.50	1.00
6	74			10	1	39	6	Netsinker	63.40	1.00
7	74			10	7	54	75	Utilized Flake/scrapper	1.50	1.00
8	77			10	7	54	89	Spokeshave on flake	14.70	1.00
9	81			10	3	54	28	secondary	2.70	1.00
10	83			10	3	54	29	tertiary	0.90	1.00
11	84			10	3	54	27	primary	7.30	1.00
12	98			10	3	54	28	secondary	3.30	1.00
13	99			10	9	53		FCR	44.50	1.00
14	99			10	3	53	27	primary	14.50	1.00
15	99			10	3	53	28	secondary	4.30	1.00
16	99			10	3	53	29	tertiary	1.10	1.00
17	103			10	3	53	29	tertiary, clear	0.50	1.00
18	106			10	3	54	21	Hammerstone, pink, core frag	57.30	1.00
19	117			10	3	54	29	tertiary	1.10	1.00
20	118			10	9	54		FCR, pink	11.30	1.00
21	121			10	3	53	29	tertiary	2.00	1.00
22	126			10	3	54	29	tertiary	0.30	1.00
23	127			10	9	39		FCR	61.70	1.00
24	127			10	9	54		FCR		1.00
25	127			10	3	54	27	primary	4.70	1.00
26	133			10	3	54	29	tertiary	0.70	1.00
27	146			10	3	54	27	primary	8.40	1.00
28	154			10	3	53	29	tertiary	0.50	1.00
29		1	2	10	9	39		FCR	11.80	1.00
30		1	2	10	9	54		FCR, metaquartzite	20.10	1.00
31		1	2	10	9			FCR	223.40	4.00
32		1	2	10	3	54	27	primary	1.60	2.00
33		1	2	10	3	54	33	shatter	2.60	1.00
34		2	2					brass shell casing		
35		2	2	10	9	53		FCR	21.20	1.00
36		2	2	10	9	53		FCR/core frag? pink,	74.80	1.00
37		2	2	10	3	53	28	secondary	17.60	2.00
38		2	2	10	3	53	29	tertiary	1.60	2.00
39		3	2	10	7	53	81	Biface	17.80	1.00
40		3	2	10	3	54	28	secondary, tan	18.60	1.00
41		3	2	10	3	54	27	primary	6.60	3.00
42		3	2	10	3	53	29	tertiary	3.00	3.00
43		4	2	10	9	53		FCR, pink	65.70	1.00
44		4	2	10	3	54	28	secondary	15.30	6.00
45		4	2	10	3	54	27	primary	7.60	2.00
46		4	2	10	3	54	29	tertiary	15.80	9.00
47		4	2	10	7	54	81	Biface	17.70	2.00
48		4	2	10	1	54	1	Point tip & mide-section	4.10	1.00
49		5	2					window glass		
50		5	2	10	3	54	29	tertiary	2.40	2.00
51		6	2	10	9	54		FCR	496.10	15.00
52		6	2	10	3	39	21	Hammerstone	191.10	1.00
53		6	2	2	9	89	3	clam		1.00
54		6	2	10	3	54	27	primary	25.70	6.00
55		6	2	10	3	54	29	tertiary	6.00	7.00
56								coal		
57		7	2	10	3	54	27	primary	22.30	2.00
58		7	2	10	3	54	28	secondary	9.60	4.00
59		7	2	10	3	54	29	tertiary	4.70	7.00
60		7	2	10	9	54		FCR, pink, HT	12.70	2.00
61		7	3a	10	3	53	28	secondary	9.80	2.00

CAT	ST	TU	LV	GP	CL	MAT	MOR	COMMENT	WT	CT
62		7	3a	10	3	53	29	tertiary	0.50	1.00
63		7	3a	10	3	54	29	tertiary	1.80	2.00
64		8	2	10	9	54		FCR	806.10	15.00
65		8	2	10	9	39		FCR	138.50	2.00
66		8	2	10	3	54	27	primary	287.40	10.00
67		8	2	10	3	53	33	shatter	2.90	1.00
68		8	2	10	3	53	29	tertiary	8.90	9.00
69		8	2					coal		
70		8	2	10	7	54	81	Biface/Point base frag	6.40	1.00
71		8	2	10	1	53	1	Wading River/Squibnocket stem	2.90	1.00
72		9	2	10	3	54	27	primary	15.30	1.00
73		9	2	10	3	54	27	primary, pink (HT?)	11.30	2.00
74		9	2	10	3	53	29	tertiary	3.10	5.00
75		10	1	10	9	54		FCR, pink	56.80	1.00
76		10	2	10	9	54		FCR	156.60	4.00
77		10	2	10	9	39		FCR	287.00	1.00
78		10	2	10	3	53	27	primary	12.30	3.00
79		10	2	10	3	53	28	secondary	8.10	3.00
80		10	2					coal		
81		10	2	10	3	52	28	secondary, grey-black	1.50	1.00
82		10	2	10	1	54	1	Lamoka/Wading River	5.30	1.00
83		11	2	10	9	54		FCR	49.40	1.00
84		11	2					iron screw		
85		11	2	10	3	54	28	secondary	19.40	3.00
86		11	2	10	3	54	27	primary	10.30	2.00
87		11	2	10	3	54	29	tertiary	7.00	6.00
88		11	2	10	3	54	33	shatter	47.00	6.00
89		11	2	10	7	53	81	Biface, poss. Adena Pt base	7.30	1.00
90		12	2	10	7	53	81	Biface on primary flake	13.10	1.00
91		12	2	10	3	54	27	primary, 1 brown	9.10	5.00
92		12	2	10	9	54		FCR, pink (HT)	52.50	1.00

APPENDIX 4

GLOSSARY

Biface: A lithic artifact exhibiting flake scars on both the dorsal and ventral surfaces.

Fire cracked rock (FCR): Rock that was either heated in a hearth or oven and cracked due to heat pressure alone or by putting heated rocks into a container of cold water for the purpose of heating the water. These rocks cracked due to a drastic change in temperature. Usually associated with cooking purposes. The artifacts exhibit cracking and crazing and heat spalls.

Debitage: Waste material from the manufacture of stone tools.

Diagnostic: Dateable. Artifacts with dateable attributes.

Hammerstone: A hand held stone used for hammering. Usually used in the making of other stone tools and referred to as hard hammer percussion (as opposed to soft hammer such as deer antlers). The hammering motion is vertical and the evidence is a pitted surface on the used section(s) of the stone.

Feature: Any soil disturbance or discoloration that reflects human activity or an artifact too large to be removed from a site (ex. hearth, cooking pit, storage pit, post holes, petroglyphs, house etc.).

Point: A thin, symmetrical tool form, usually bifacially flaked, having one end pointed and the other end modified for hafting. Regularities in design and style are usually recognized and associated with broad cultures and provide an important tool for chronological analysis. Points included spear points, arrow points, or knives.

Primary Flake: Flake having all (100%) of the cortex remaining on the dorsal surface.

Secondary Flake: Flake having the dorsal surface partially covered by cortex (less than 100%). The dorsal surface exhibits flake scars from previous flake removal.

Spokeshave: These are concave endscrapers or side scrapers with 1 or more broad concavities created by pressure retouch. These are thought to be used to plane shafts other surfaces.

Stratigraphy: Sequence of geological or culturally deposited layers, or strata.

Subsoil: Technically, the B horizon, roughly, the part of the solum below plow depth.

Tertiary Flakes: Small pressure flake and thin, low intensity percussion flakes removed during the last stages of stone tool production. Small, thin flake with a well prepared platform and no remaining cortex.

Utilized Flake: These are unretouched artifacts which have macroscopic evidence of use. Indications of use are crushed edges or a row of minute flake scars. These tools were probably used for light cutting, trimming and incidental scraping.

APPENDIX 5



UPDATE.

NEW YORK STATE PREHISTORIC ARCHAEOLOGICAL SITE INVENTORY FORM
NYS OFFICE OF PARKS, RECREATION & HISTORIC PRESERVATION
(518) 237-8643

For Office Use Only--Site Identifier A10307.000724

Project Identifier Wards Point

Date 10-7-08

Your Name Alfred Cammisa

Phone (845) 783-4082

Address 62 Pickerel Rd.

Monroe, NY

Organization (if any) TRACKER-Archaeology Services

1. SITE IDENTIFIER(S) Bittner 2 Site

2. COUNTY Suffolk One of the following: CITY _____

TOWNSHIP Shelter Island

INCORPORATED VILLAGE _____

UNINCORPORATED VILLAGE OR HAMLET _____

3. PRESENT OWNER _____

Address _____

4. SITE DESCRIPTION (check all appropriate categories):

Site

☐ Stray Find

☐ Cave/Rockshelter

☒ Workshop

☐ Pictograph

☐ Quarry

☐ Mound

☐ Burial

☐ Shell Midden

☐ Village

☐ Surface Evidence

☒ Camp

☒ Material in plow zone

☒ Material below plow zone

☒ Buried evidence

☐ Intact Occupation floor

☐ Single component

☐ Evidence of features

☐ Stratified

☒ Multicomponent

Location

☐ Under cultivation

☐ Never cultivated

☒ Previously cultivated

☐ Pastureland

☐ Woodland

☐ Floodplain

☐ Upland

☐ Sustaining erosion

Soil Drainage: excellent ☐ good ☒ fair ☐ poor ☐

Slope: flat ☐ gentle ☒ moderate ☐ steep ☐

Distance to nearest water from site (approx.) adjacent to Shelter Island Sound

Elevation: 50

5. SITE INVESTIGATION (append additional sheets, if necessary):

Surface--date(s) 8-08

☐ Site map (Submit with form)

☐ Collection

Subsurface--date(s) 8-2008

Testing: shovel ☒ coring ☐ other _____ unit size 30cm.

no. of STs 154???? (Submit plan of units with form)
Excavation: unit size 1m no. of units 12

Investigator Alfred Cammisa

Manuscript or published report(s) (reference fully):

The Bittner 2 Site: Phase II Archaeological Intensive Testing At Wards Point
Town of Shelter Island, Suffolk County, New York

Present repository of materials TRACKER

6. COMPONENT(S) (cultural affiliation/dates):

Late Archaic and possible Early Woodland

7. LIST OF MATERIAL REMAINS (be specific as possible in identifying object and material):

primary, secondary and tertiary flakes, shatter, bifaces, hammerstones, spokeshave, netsinker, utilized flake, points, and fire cracked rock. One Lamoka/Wading River type, 1 Wading River/Squibnocket type, 1 Adena-like biface

If historic materials are evident, check here and fill out historic site form ____

8. MAP REFERENCES

USGS 7.5 Minute Series Quad. Name Greenport, NY

UTM Coordinates _____

9. Photography