Phase I Archaeological Investigations for the proposed Woodridge Cluster subdivision Town of Chester, Orange County, New York

December 2015

Prepared for: J.K. Development Corp., Highland Mills, New York Pietrzak & Pfau, Goshen, New York

Alfred G. Cammisa, RPA with Alexander Padilla (CAD)

MANAGEMENT SUMMARY

<u>PR#:</u>

None known

Involved agencies:

NYDEC

Town of Chester

Phase:

Phase IA & IB

Location:

Town of Chester Orange County

Survey Area:

Width: about 1050 feet (320 meters) north-south Length: about 650 feet (198 m) east-west Acres Surveyed: about 18 acres (7 hectares)

USGS: Monroe, NY

Survey overview:

ST no. & interval: 299 ST's at 50-25 ft. (15-7.5m) intervals.

<u>Results:</u>

No prehistoric or historic remains

Results of Architectural Survey:

No. Of buildings/structures/cemeteries in project area: none

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

No. Of previously determined NR listed or eligible buildings/structures/cemeteries/districts: none

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

Authors:

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Date of Report:

Report completed December 2015

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INTRODUCTION

Between November 16 and December 6, 2015, TRACKER Archaeology, Inc. conducted a Phase IA documentary study and a Phase IB archaeological survey for the proposed Woodridge Cluster subdivision in the Town of Chester, Orange 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. In addition, the study area was visited by the author and visually assessed.

The prehistoric and historic site file search was conducted utilizing the resources of the New York State Historic Preservation Office in Waterford, New York. Various historic web sites may have queried to review any pertinent site information.

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

These investigations have been conducted in accordance with the standards set forth by the New York Archaeological Council and the New York State Historic Preservation Office.

The project area (APE) is about 18 acres from a larger, 39 acre property. The property is bound to the south by Laroe Road and to the remaining sides by private properties.

The investigation was completed by TRACKER Archaeology, Inc. of Monroe, New York. Prehistoric and historic research was conducted by PI, Alfred G. Cammisa, M.A., RPA. Field work was by Alfred G. Cammisa, and field technicians, Alfred T. Cammisa, Bridgette Cammisa, and Evan Pol. Report preparation was by Alfred G. Cammisa with Alexander Padilla (CAD).

The work was performed for J.K. Development Corp., Highland Mills, New York and Pietrzak & Pfau, Goshen, New York.

ENVIRONMENT

Geology

The study area is located in the southeast portion of New York State near the central part of Orange County. This region of New York lies within the Ridge and Valley Physiographic Province. This province, also known as the Newer Appalachians, extends from Lake Champlain to Alabama. It passes as a narrow lowland belt between the New England Uplands (Taconic Mountains and Hudson Highlands) to the east and the Appalachian Plateau (Catskill and Shawangunk Mountains) and Adirondack Mountains to the west. The characteristic topography is a succession of parallel valleys and ridges trending roughly in a northeasterly direction. This is a region of sedimentary rocks which were easily eroded and subjected to folding or bedding of the rock layers (Schuberth 1968: cover map, 16-18; Isachsen et al 2000: 4, 53-54; New York-New Jersey Trail Conference 1998: cover map).

Soils and Topography

Soils on the project area consist of:

NAME	SOIL HORIZON DEPTH in(cm)	COLOR	TEXTURE INCLUSION	SLOPE %	DRAINAGE	LANDFORM
Mardin	Ap 0-8in (0-20cm) B 8-15 (-38) B 15-20(-51)	10YR4/2 10YR5/8 10YR6/3	GrSiLo	3-8, 8-15	well	glacial till deposits

Olsson 1981: map #81, pgs. 37-38, 95).

KEY:

Shade: Lt=Light, Dk=Dark, V=Very

Color: Br=Brown, Blk=Black, Gry=Gray, Gbr=Gray Brown, StBr=Strong Brown, Rbr=Red Brown, Ybr=

Yellow Brown

Soils: Si=Silt, Lo=Loam, Sa=Sand, Cl=Clay

Other: Sh=shale, M=Mottle, Gr=Gravelly, Cb=cobbles, /=or

The elevation on the project area ranges from approximately 490 to 710 feet above mean sea level.

Hydrology

The survey (Figure 2) shows an intermittent stream at the southeast part of the project area. The Soil Survey (Figure 9) shows a wet area in the west of the project area. The project area is also approximately .15 mile east of Trout Brook a permanent tributary which flows in Moodna Creek and the Hudson River.

Vegetation

The predominant forest community in this area was probably the Oak Hickory. This forest is a nut producing forest with acorns and hickory nuts usually an obvious part of the leaf litter on the forest floor. The Oak Hickory Forest intermingles with virtually all other forest types. The northern extension of this forest community was also originally called the Oak-Chestnut forest, before the historic Chestnut blight (Kricher 1988:38, 57-60).

At the time of the Phase IB field work, the project area consisted of a high canopy forest with oak, cedar, birch, hickory, and other with a sparse undergrowth of briars and vines.

PREHISTORIC POTENTIAL

A prehistoric site file search was conducted at the New York State Historic Preservation Office. The search included a 1 mile radius around the study area. The following sites were recorded:

NYSM SITES	NYSHPO SITES	DISTANCE FROM APE ft mm)	SITE DESCRIPTION
	7102.000105	728 (222)	Cluster 4: prehistoric surface evidence
	7102.000083	1685 (514)	Trout Brook Estate prehistoric finds

NYSM SITES	NYSHPO SITES	DISTANCE FROM APE ft mm)	SITE DESCRIPTION
	7102.000098	1851 (564)	Area 7: prehistoric camp
	7102.000104	1834 (559)	Cluster 3: prehistoric quarry
	7102.000106	1806 (551)	Cluster 5: prehistoric surface evidence
	7102.000099	2419 (738)	Area 8; prehistoric camp
	7102.000102	2474 (754)	Cluster 1: prehistoric quarry
	7102.000103	2627 (801)	Cluster 2: prehistoric quarry
	7102.000107	2719 (829)	Clusters 6&7: surface evidence, quarry
	7102.000100	2733 (833)	Area 9: prehistoric quarry
	7102.000096	2866 (874)	Area 5: prehistoric quarry
	7102.000097	3192 (973)	Area 6: prehistoric camp
	7102.000095	3193 (973)	Area 4: prehistoric quarry
	7102.000101	3275 (998)	Area 10: prehistoric quarry, workshop
	7102.000094	3574 (1089)	Area 3: prehistoric quarry
	7102.000092	4010 (1223)	Area 1: prehistoric quarry
	7102.000093	4082 (1245)	Area 2: prehistoric quarry

An Indian foot trail followed roughly along the path of Kings Highway. Although this foot path was recorded historically, it undoubtedly existed prehistorically, to some extent (see Historic Potential).

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

- -The survey (Figure 2) shows an intermittent stream at the southeast part of the project area. The Soil Survey (Figure 9) shows a wet area in the west of the project area. The project area is also approximately .15 mile east of Trout Brook a permanent tributary which flows in Moodna Creek and the Hudson River.
- -The project area has well drained soils with level to steeply sloping terrain.
- -Numerous prehistoric sites were recorded near the project area.
- -An Indian foot trail was located near current Kings Highway, in the general vicinity of the study area.

In our opinion, the study area has a higher than average potential for the recovery of prehistoric sites along the more level areas of the property. Steep slopes would have a lower potential but should be walked-over for quarry sites, rock-shelter or cave sites. The type of site encountered could be a procurement/processing or base camp site from either Woodland or Archaic Periods.

HISTORIC POTENTIAL

Seventeenth Century

At the time of European contact and settlement, the study area was probably occupied by the Waoranecks who lived between Stony Point and Danns Kammer (near Newburgh Bay). Their western boundary unknown. These peoples were likely a sub-branch and/or clan related to the large Munsee (Minsi) tribe belonging to the Delawarean linguistic family. The term "Minsi" (or "Munsee") means people of the stony country" or abbreviated as "mountaineers" (Ruttenber 1992A:35, 44-45, 49-50, 93; Ruttenber 1992B:221; Becker 1993:16-22; Weslager 1991:45; Synder 1969:2; Figure 3).

Population estimates for the Munsee are 600 to 800 individuals. The Munsee are described by Becker (1993:18) as possibly horticultural. Hull (1996:10) mentions that they were hunters, gatherers, and horticulturalists. They fished in the fast running waters of the Wawayanda and Pochuck creeks.

An Indian trail known as the Wawayanda Trail started at the tribal meeting grounds at Danns Kammer, then passed through Washingtonville, Chester, Warwick and Vernon villages, and eventually on to Philadelphia. This road, or the close approximation, is currently known as Kings Highway (Hull 1996:127; Durland 1903:148).

Eighteenth Century

The Waoraneck Munsees living in Warwick had a large settlement a few hundred yards from the old Welling farm on Route 94 (Kings Highway here). This group was known locally, or their village was known locally as the Mistucky. It was recorded that these Indians had an apple orchard. Their chief/headman was called Chuckhass in the early eighteenth century. Chuckhass was one of the twelve chiefs signing the Wawayanda Patent to release their territory (Durland 1903:148; Ruttenber and Clarke 1881:568).

In many of the valleys between the high mountain ridges, are the old roads, following in some instances, Indian foot paths (Durland 1903:148).

The DeWitt map of Land Patents shows the project area near Walton Lake (Figure 3).

The 1779 Sauthier map shows the study property just east of what is believed to be Sugar Loaf Mountain and Kings Highway (Figure 4).

Nineteenth Century

Chester's chief business was agriculture. The Town is said to contain some of the most fertile land in the state (Ruttenber 1881:620; Durland 1903:148).

The 1840 Map of Orange and Rockland Counties shows the project area near Walton Lake. No structures are on, or nearby the project parcel (Figure 5).

The 1850 Map of Orange County shows the project area with a structure adjacent to the project area (Figure 6).

The 1875 Beers atlas of Chester Town shows the project area with a structure adjacent to it (Figure 7).

During the 1880's businesses in the village included: a hotel, post office, insurance company, bakery, undertaker, boots and shoes store, Allison's store-a place of trade, stoves and hardware, confectionary, restaurant, the doctor's office, groceries, meat market, drug store, dry goods-groceries-general merchandise, harness-shop, millinery, dress-making, and two carpenter shops. In town, but outside the village proper, were located other business (Ruttenber 1881:616).

Twentieth Century

The 1908 USGS shows still depicts a structure adjacent to the project area (Figure 8).

An historic site file search was conducted at the New York State Historic Preservation Office. The search included a 1 mile radius around the study area. The following sites were recorded:

NYSM SITES	NYSHPO SITES	DISTANCE FROM APE ft(m)	SITE DESCRIPTION
	7102.000108	3611 (1101)	Bull House Site: possibly Civl War Era, complete structure

An Indian foot trail followed roughly along the path of Kings Highway.

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

- -The survey (Figure 2) shows an intermittent stream at the southeast part of the project area. The Soil Survey (Figure 9) shows a wet area in the west of the project area. The project area is also approximately .15 mile east of Trout Brook a permanent tributary which flows in Moodna Creek and the Hudson River.
- -The project area has well drained soils with level to steeply sloping terrain.
- -An historic house/site was recorded nearby the project area.
- -An Indian foot trail was located near current Kings Highway, in the vicinity of the study area. It likely hooked up with other trails in the area.
- -An historic MDS is shown adjacent to the project area.

In our opinion, the study area has a higher than average potential for the recovery of historic sites along the more level areas of the property. The type of site encountered would likely be be a Euro-American site.

FIELD METHODS

Walkover

Any exposed ground surfaces were walked over at about 3 to 5 meter intervals to observe for artifacts. Covered ground terrain was reconnoitered at about 15 to 7.5 meter intervals for any above ground features, such as berms, depressions, or rock-shelters which might be evidence for historic or prehistoric sites.

Shovel Testing

Shovel tests were excavated at about 15 to 7.5 meter intervals throughout the project area. The closer intervals were along the west side, closer to the previously reported prehistoric sites. Each shovel test measured about 30 cm. in diameter and was excavated into the underlying subsoil (B horizon) 10 to 20 cm. if 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 tests (ST's) 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 on ST stratigraphy and other information was transcribed in a notebook and on pre-printed field forms.

FIELD RESULTS

Field testing of the project property included the excavation of 299 shovel tests. No prehistoric artifacts or features were encountered. No historic artifacts or features were encountered.

Stratigraphy

Soil textures across the project area consisted of:

O Horizon - about 3 to 15 cm. thick of root mat, leaf litter and humus.

A Horizon - about 4 to 25 cm. thick of 10YR4/2 dark gray brown gravelly loam.

B Horizon - about 0 to 20 cm. dug into of 10YR5/8 yellow brown gravelly loam. This layer was at times impeded or lacking due to bedrock or the natural gravel content in the soils.

CONCLUSIONS AND RECOMMENDATIONS

Based upon proximity to a stream and wetlands, prehistoric sites, Indian trails, and level to steeply sloped terrain with well drained to poorly drained soils, the project area is seen as having a higher than average potential for the recovery of prehistoric sites.

Based upon the similar environmental characteristics and proximity to historic sites and Indian trails, and the adjacent railroad, the project area was seen as having a higher than average potential for encountering historic sites.

The field survey included the excavation of 299 ST's on the project property. No prehistoric artifacts or features were encountered. Nor historic artifacts or features were encountered. No further archaeological work is recommended.

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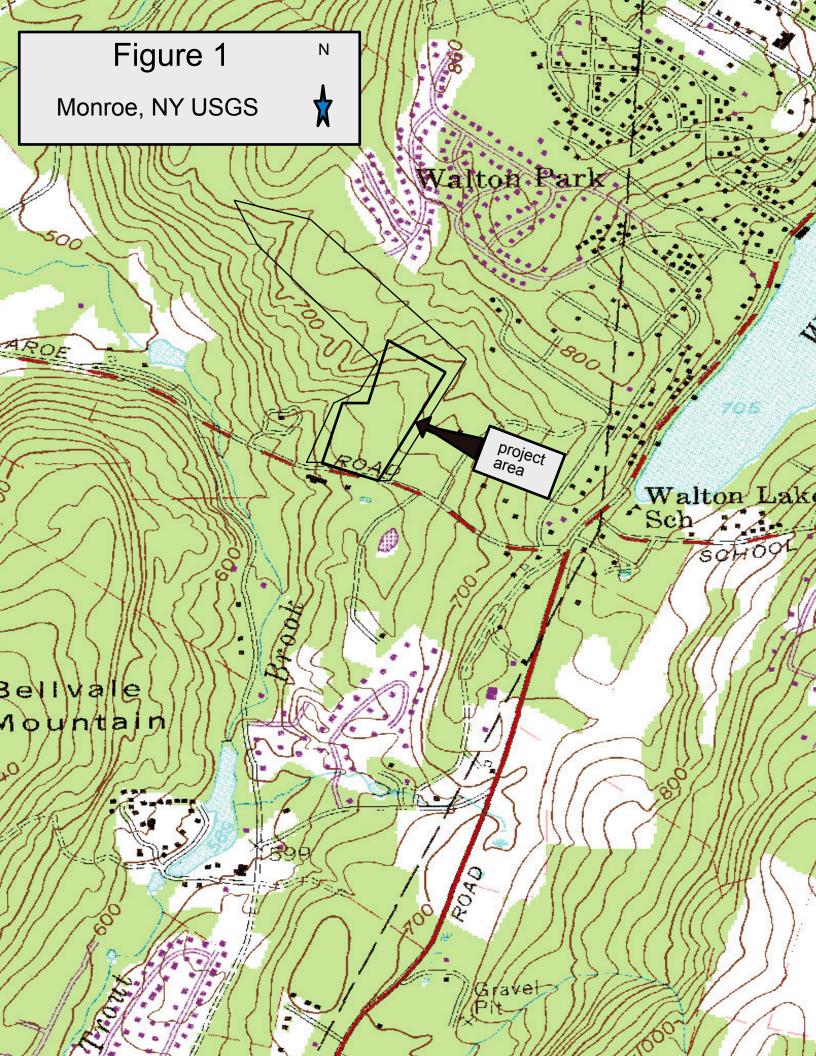
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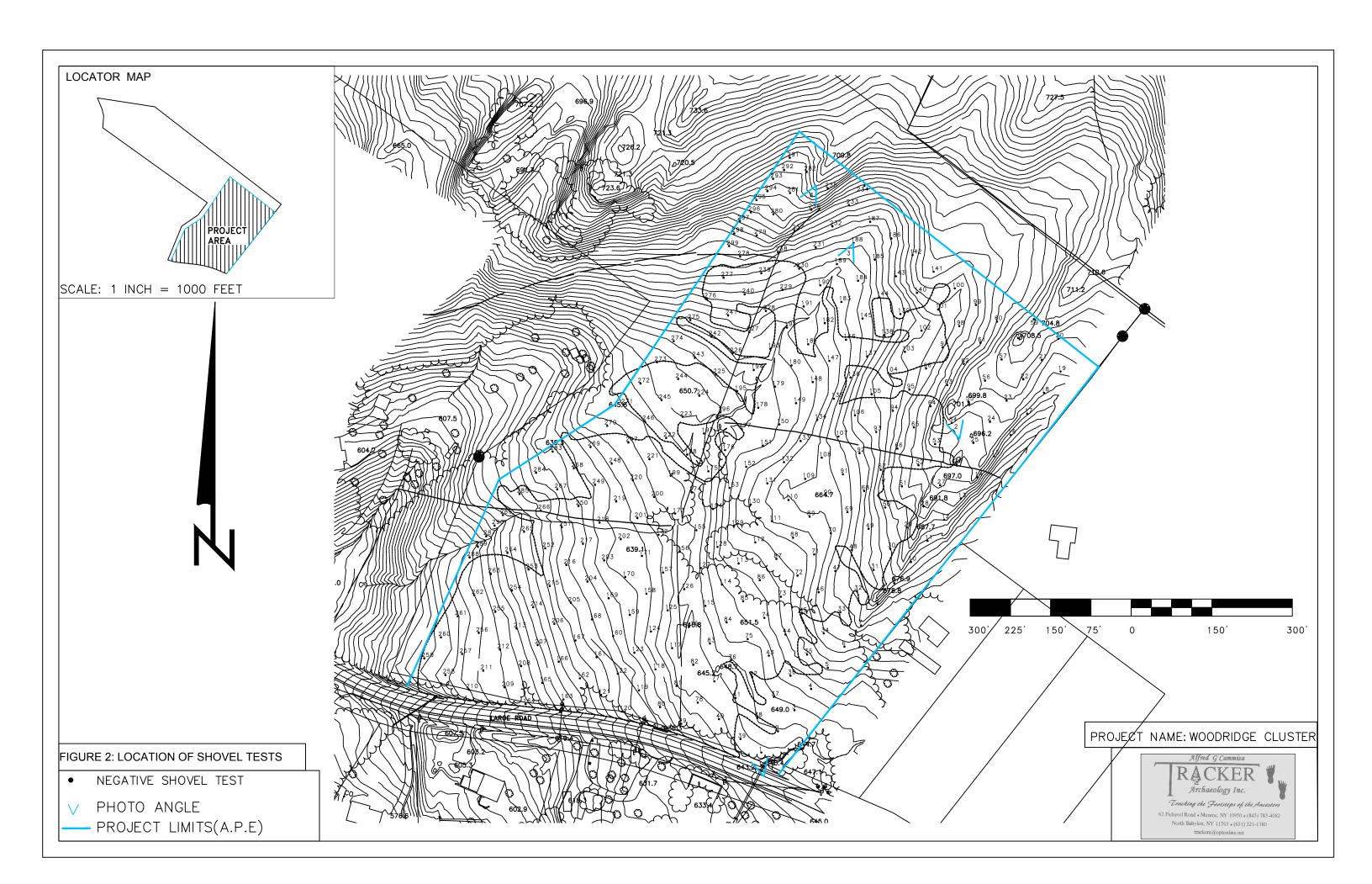
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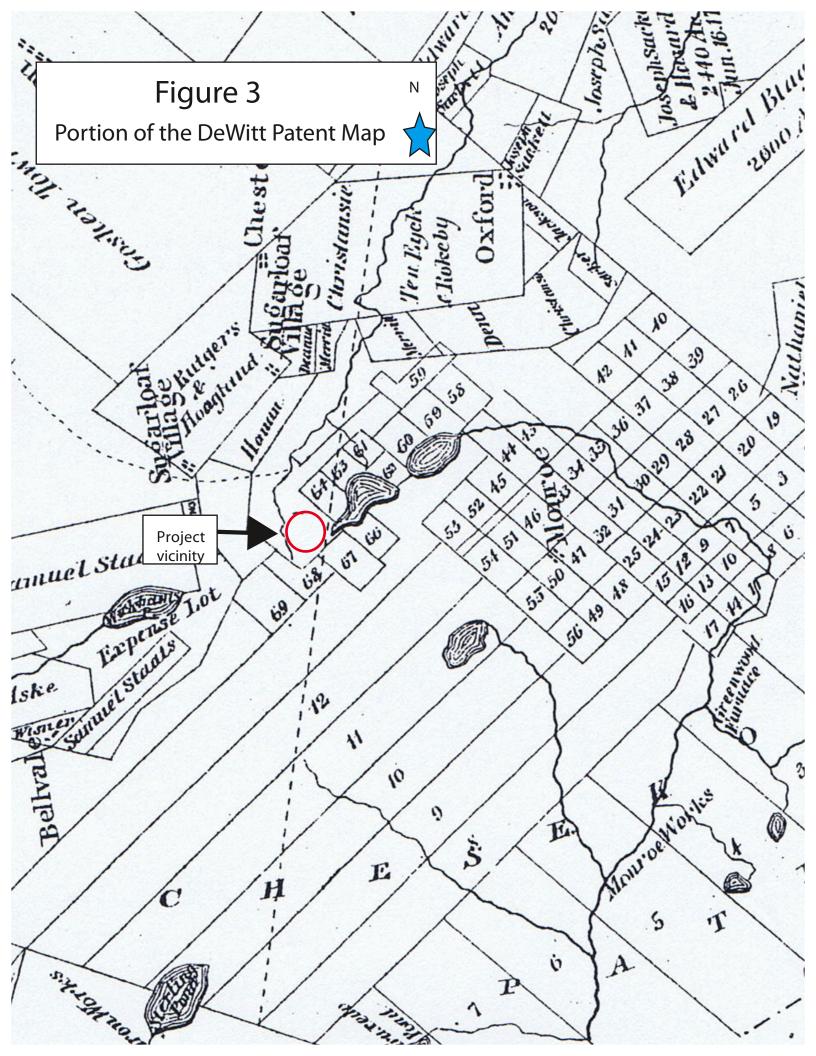
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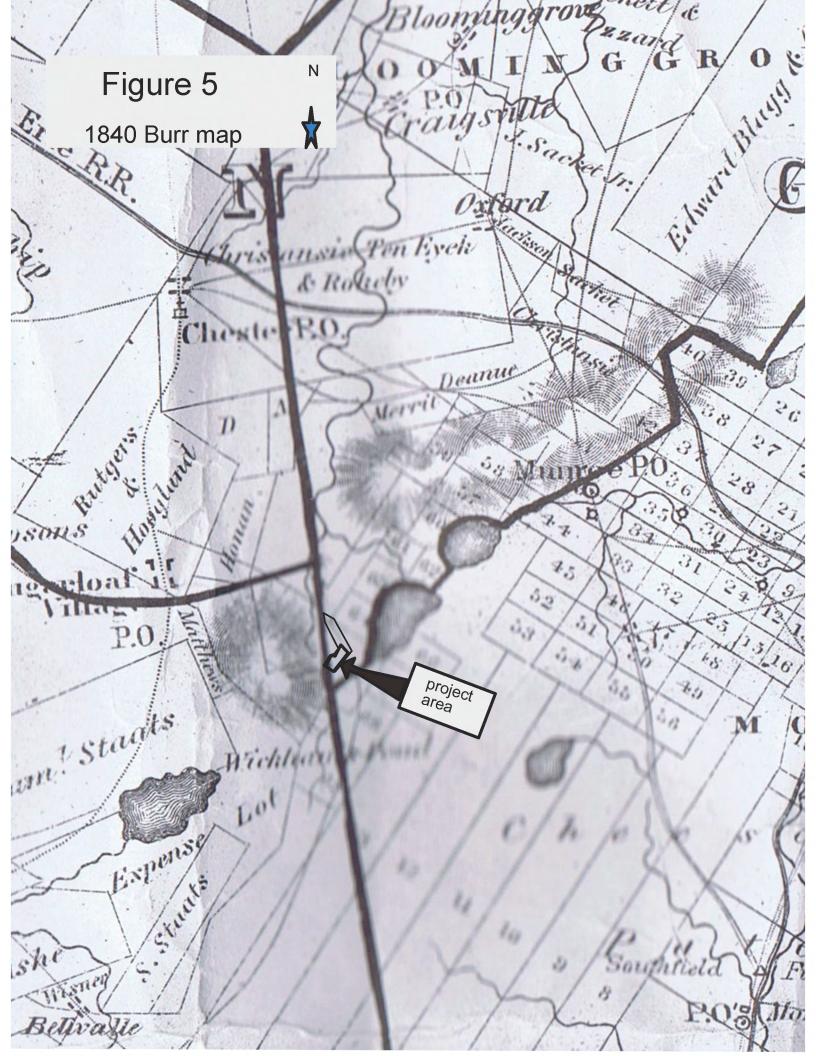


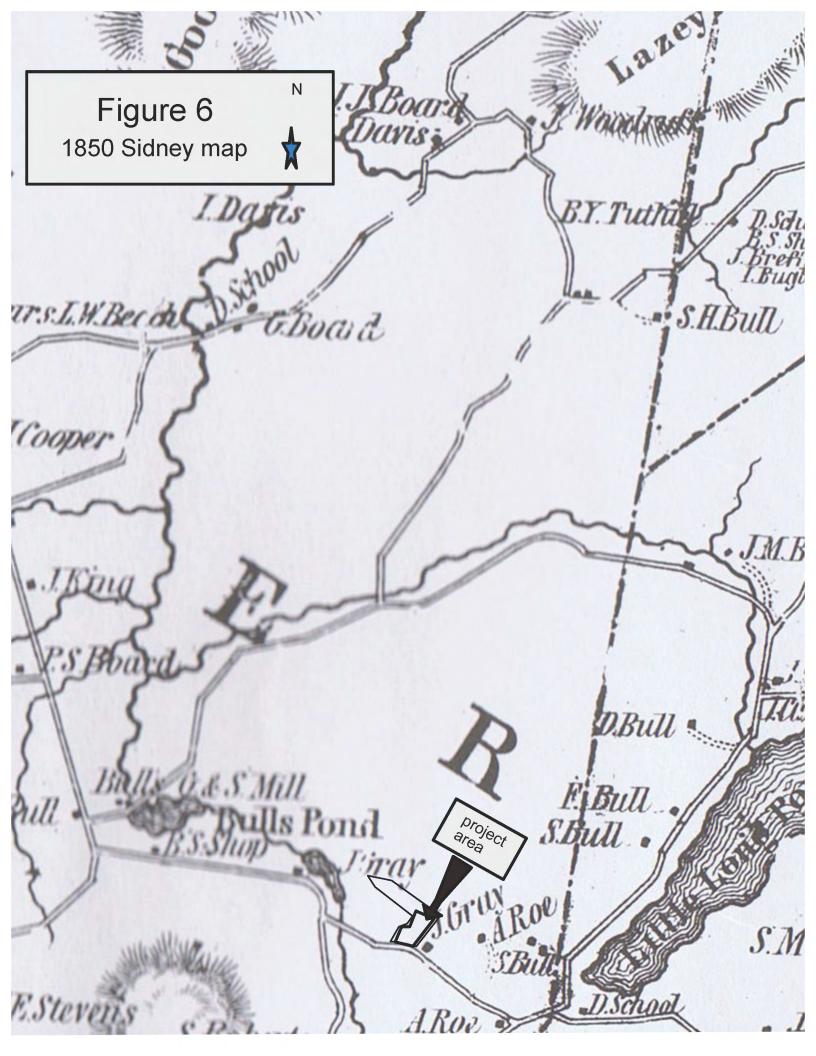


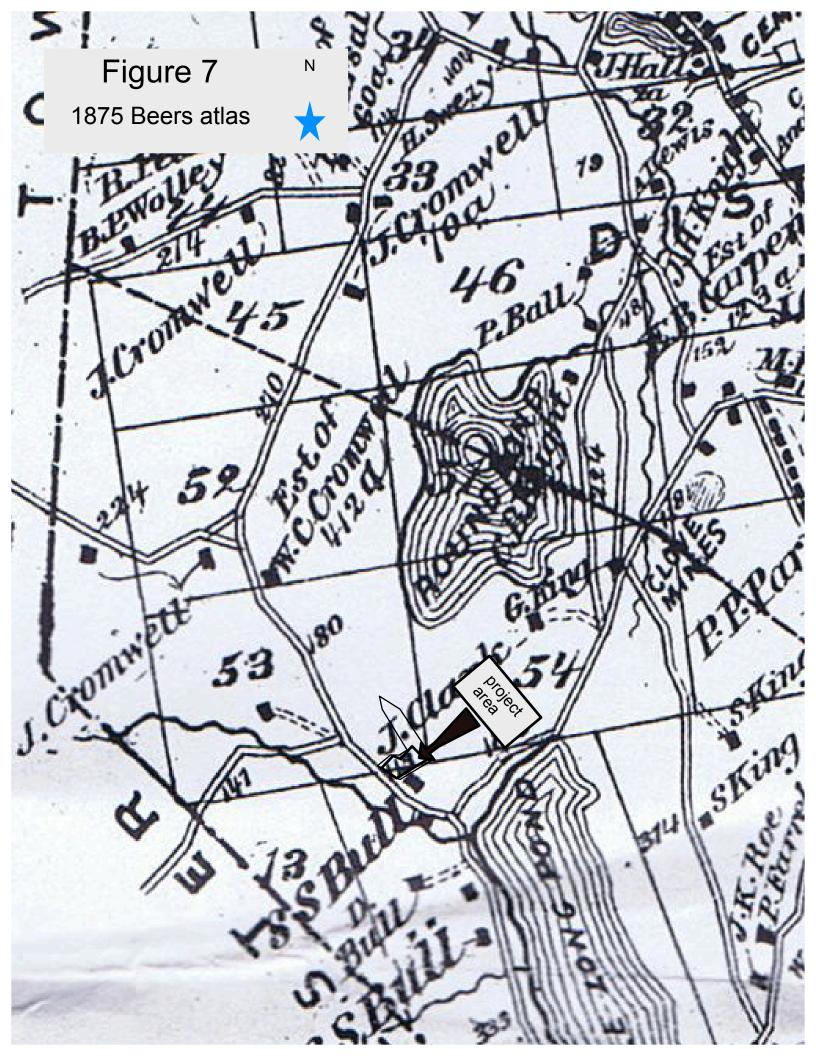


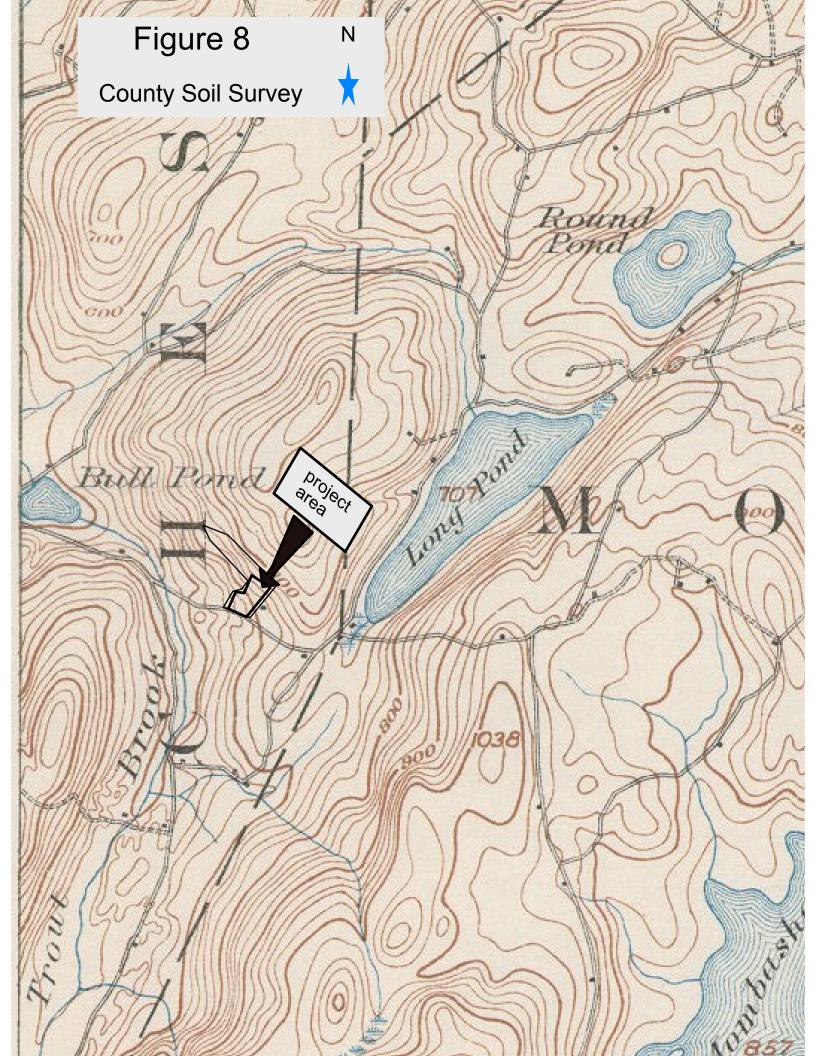


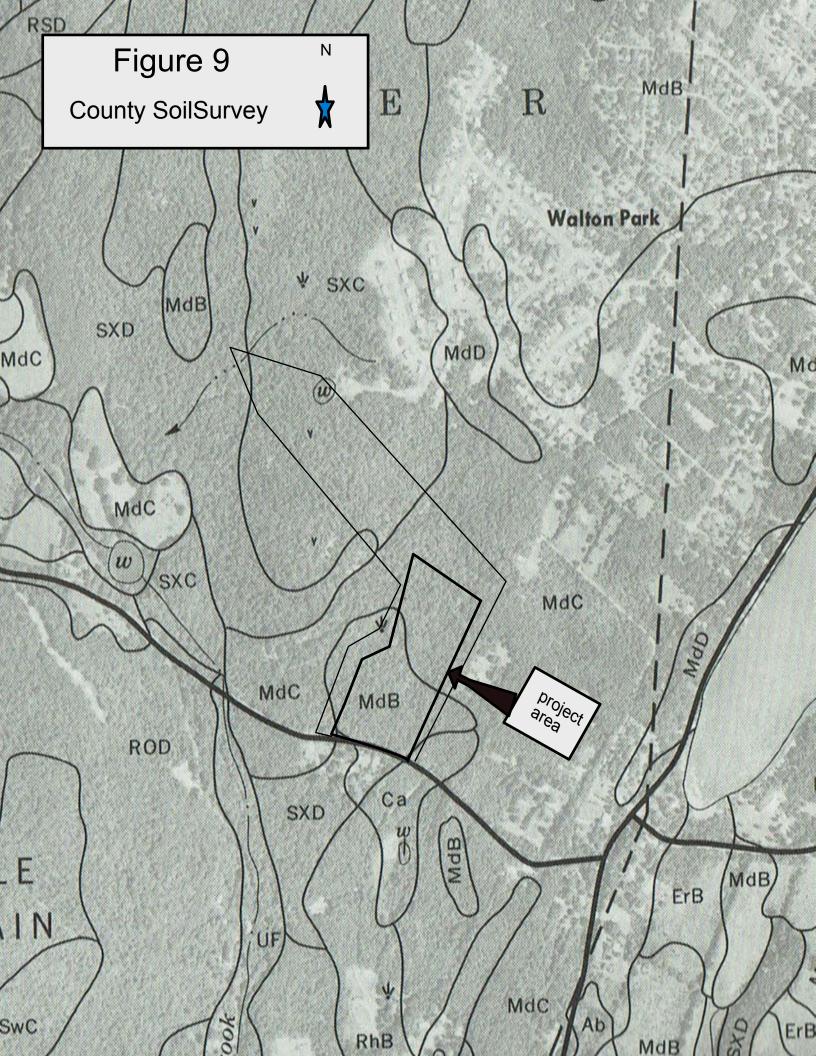


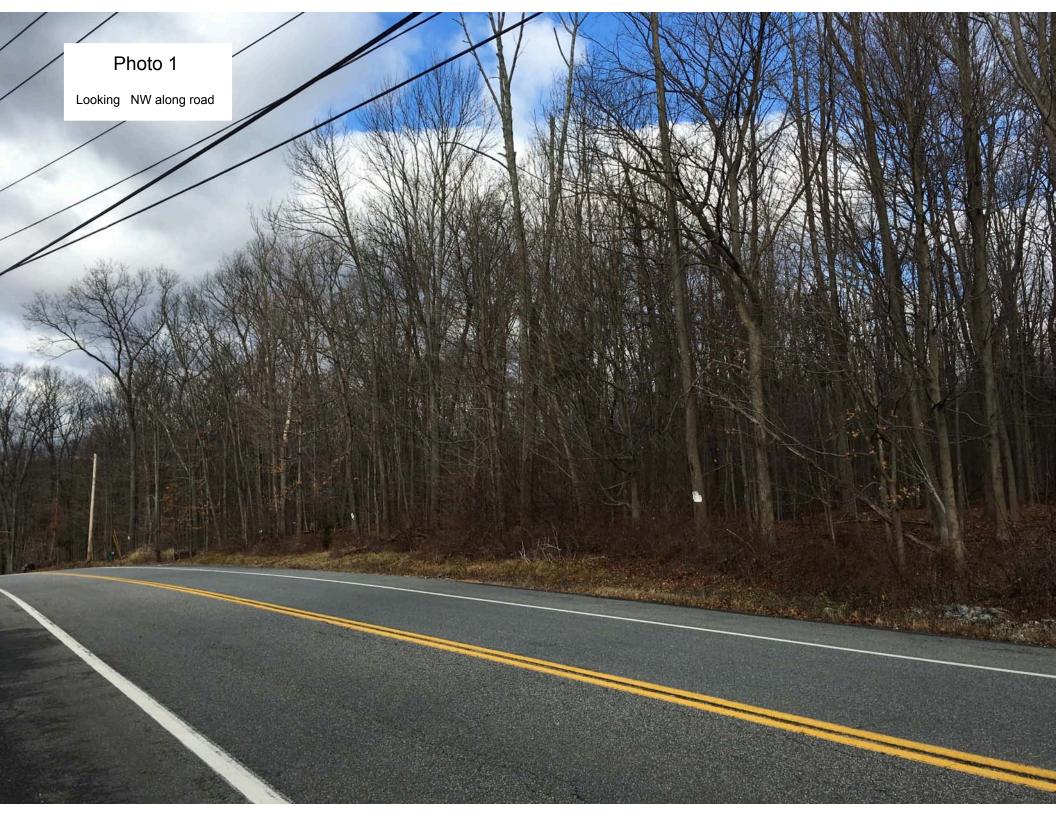




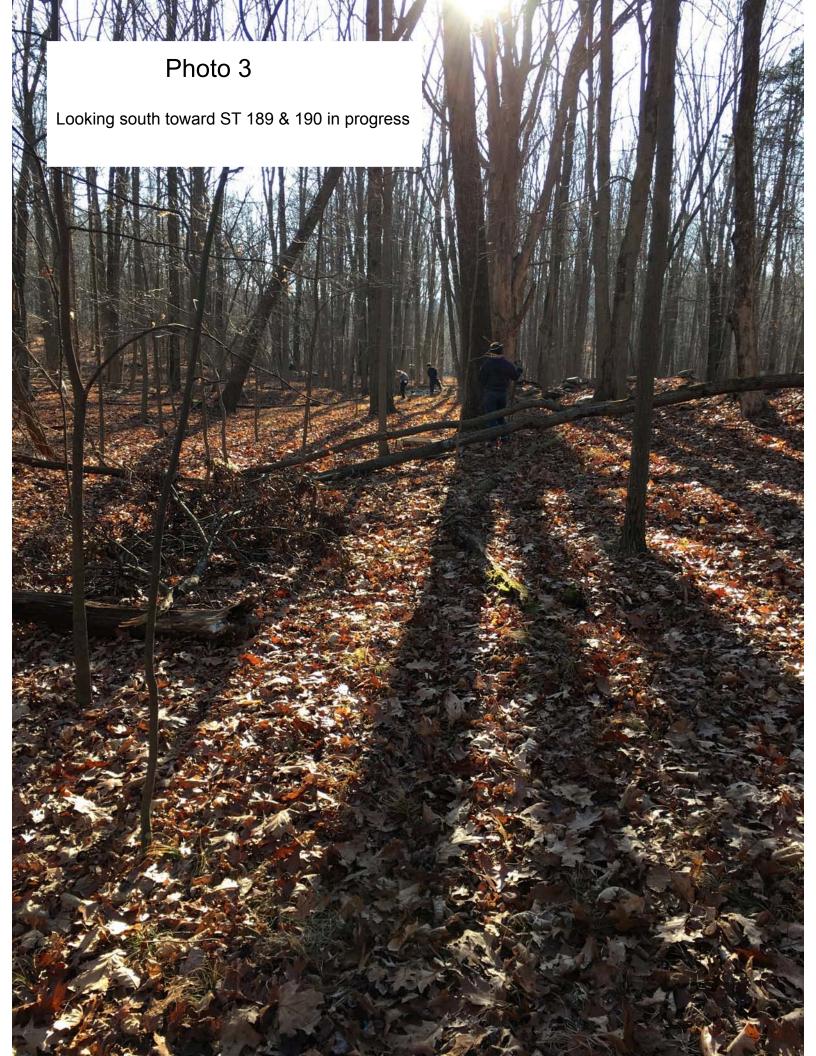


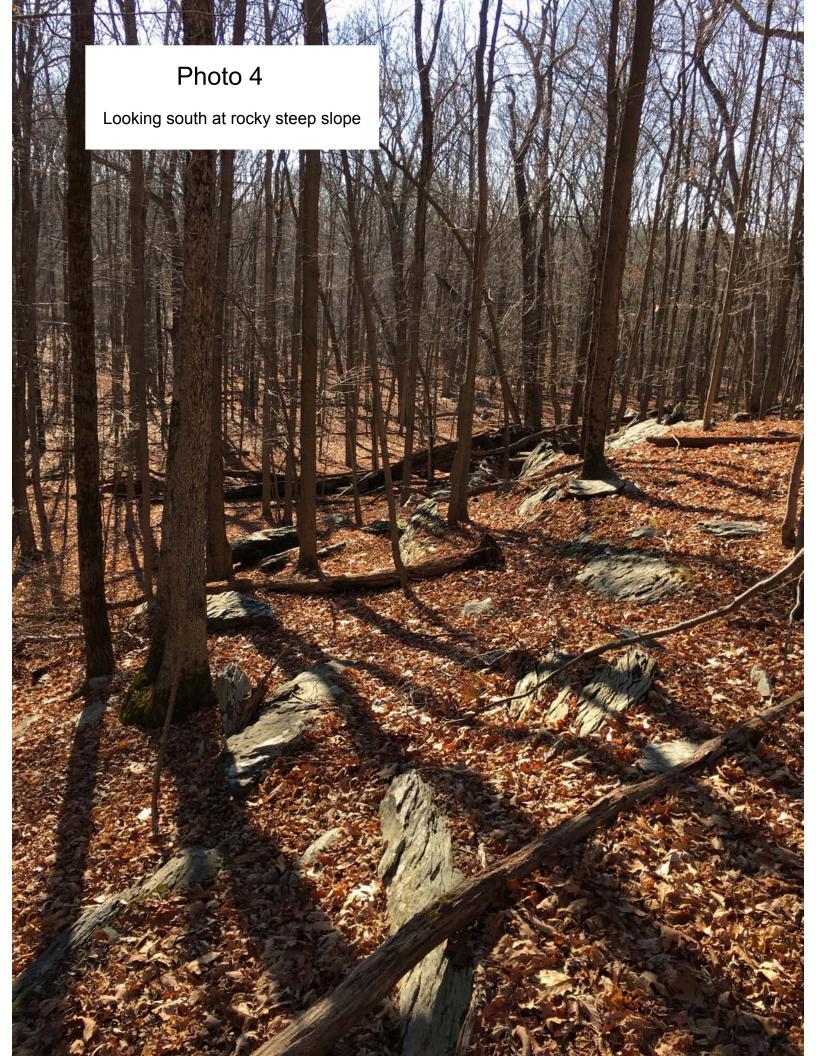


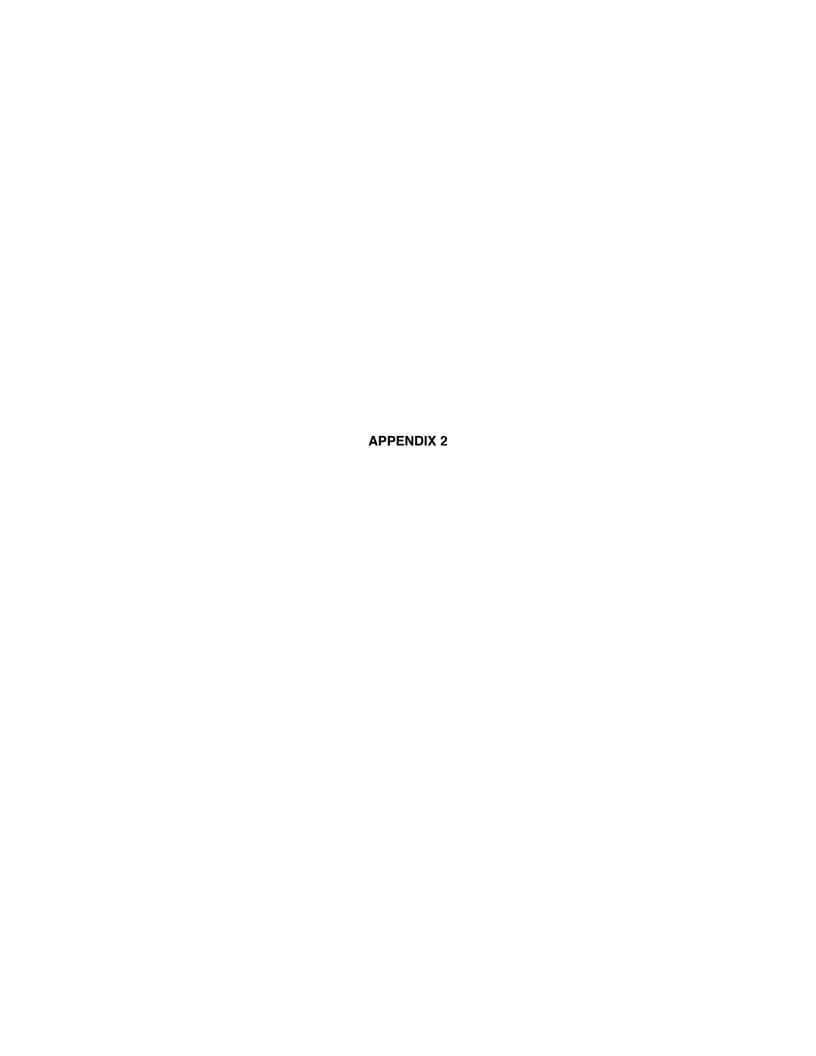












SHOVEL TESTS

STP 1	LV 1 2 3	DEPTH(CM) 0-6 6-28 28-45	TEXTURE rootmat,leaves,humus GrLo GrLo	COLOR 10YR4/2 10YR5/8	HOR A/O A B	COMMENT NCM NCM NCM
2	1 2 3	0-5 5-28 28-47	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
3	1 2 3	0-15 15-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
4	1 2 3	0-10 10-30 20-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
5	1 2 3	0-10 10-30 30-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
6	1 2 3	0-10 10-28 18-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
7	1 2 3	0-12 12-17 17-29	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
8	1 2 3	0-12 12-17 17-29	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
9	1 2 3	0-11 11-18 18-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
10	1 2 3	0-14 14-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
11	1 2 3	0-13 13-32 32-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
12	1 2 3	0-12 12-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
13	1	0-13	rootmat,leaves,humus		A/O	NCM

14	2 3 1 2 3	13-26 24-37 0-13 13-28 28-40	GrLo GrLo rootmat,leaves,humus GrLo GiLo	10YR4/2 10YR5/8 10YR4/2 10YR5/8	A B A/O A B	NCM NCM NCM NCM NCM
15	1 2 3	0-10 10-28 28-40	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
16	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
17	1 2 3	0-13 13-29 29-41	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
18	1 2 3	0-10 10-27 27-40	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
19	1 2 3	0-11 11-26 26-38	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
20	1 2 3	0-13 13-30 30-43	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
21	1 2 3	0-12 12-32 32-43	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
22	1 2 3	0-12 12-31 31-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
23	1 2 3	0-14 14-30 30-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
24	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
25	1 2 3	0-12 12-28 28-39	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
26	1 2 3	0-13 13-25 25-37	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

27	1 2 3	0-12 12-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
28	1 2 3	0-12 12-28 28-39	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
29	1 2 3	0-15 15-28 28-39	rootmat,leaves,humus GrSdLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
30	1 2 3	0-13 13-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
31	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
32	1 2 3	0-12 12-29 29-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
33	1 2 3	0-12 12-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
34	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
35	1 2 3	0-15 15-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
36	1 2 3	0-13 13-31 31-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
37	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
38	1 2 3	0-13 13-23 23-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
39	1 2 3	0-13 13-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

40	1 2 3	0-10 10-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
41	1 2 3	0-9 9-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
42	1 2 3	0-9 9-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
43	1 2 3	0-9 9-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
44	1 2 3	0-7 3-25 25-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
45	1 2 3	0-10 10-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
46	1 2 3	0-14 14-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
47	1 2 3	0-13 13-25 25-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
48	1 2 3	0-9 9-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
49	1 2 3	0-8 8-28 28-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
50	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
51	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
52	1 2 3	0-12 12-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

53	1 2 3	0-9 9-25 25-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
54	1 2	0-13 13-bedrock	rootmat,leaves,humus		A/O	NCM
55	1 2	0-10 10-bedrock	rootmat,leaves,humus		A/O	NCM
56	1 2 3	0-12 12-18 18-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
57	1 2 3	0-8 8-29 29-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
58	1 2 3	0-10 10-29 29-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
59	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
60	1 2 3	0-10 10-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
61	1 2 3	0-12 12-28 28-49	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
62	1 2 3	0-14 14-29 29-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
63	1 2 3	0-10 10-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
64	1 2 3	0-2 2-27 27-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
65	1 2 3	0-10 10-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
66	1 2	0-10 10-30	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM

	3	30-41	GrLo	10YR5/8	В	NCM
67	1 2 3	0-10 10-28 28-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
68	1 2 3	0-10 10-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
69	1 2 3	0-13 13-26 26-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
70	1 2 3	0-12 12-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
71	1 2 3	0-13 13-31 31-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
72	1 2 3	0-12 12-32 32-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
73	1 2 3	0-13 13-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
74	1 2 3	0-12 12-30 30-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
75	1 2 3	0-10 10-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
76	1 2 3	0-2 2-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
77	1 2 3	0-10 10-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
78	1 2 3	0-12 12-30 30-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
79	1 2 3	0-13 13-33 33-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

80	1 2 3	0-13 13-33 33-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
81	1 2 3	0-13 13-36 36-49	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
82	1 2 3	0-12 12-29 29-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
83	1 2 3	0-13 13-32 32-42	rootmat,leaves,humus GrLo,wet GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
84	1 2 3	0-13 13-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
85	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
86	1 2 3	0-9 9-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
87	1 2 3	0-10 10-32 32-47	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
88	1 2 3	0-14 14-26 26-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
89	1 2 3	0-13 13-33 33-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
90	1 2 3	0-13 13-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
91	1 2 3	0-13 13-33 33-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
92	1 2 3	0-13 13-32 32-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

93	1 2 3	0-13 13-33 33-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
94	1 2 3	0-14 14-29 29-48	rootmat,leaves,humus GrLo,wet GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
95	1 2 3	0-13 13-32 32-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
96	1 2 3	0-13 13-32 32-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
97	1 2 3	0-10 10-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
98	1 2 3	0-10 10-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
99	1 2 3	0-12 12-25 25-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
100	1 2 3	0-12 12-34 34-49	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
101	1 2 3	0-14 14-28 28-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
102	1 2 3	0-9 9-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
103	1 2 3	0-10 10-31 31-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
104	1 2 3	0-10 10-31 31-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
105	1 2 3	0-3 3-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

106	1 2 3	0-9 9-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
107	1 2 3	0-8 8-22 22-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
108	1 2 3	0-7 7-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
109	1 2 3	0-9 9-23 23-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
110	1 2 3	0-10 10-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
111	1 2 3	0-8 8-31 31-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
112	1 2 3	0-5 5-35 35-41,rocks	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
113	1 2 3	0-10 10-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
114	1 2 3	0-10 10-31 31-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
115	1 2 3	0-8 8-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
116	1 2 3	0-8 8-27 27-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
117	1 2 3	0-3 3-13 13-rocks	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
118	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

119	1 2 3	0-8 8-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
120	1 2 3	0-13 13-27 27-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
121	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
122	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
123	1 2 3	0-3 3-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
124	1 2 3	0-3 3-18 18-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
125	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
126	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
127	1 2 3	0-9 9-26 26-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
128	1 2 3	0-9 9-18 18-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
129	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
130	1 2 3	0-8 8-19 19-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
131	1 2 3	0-13 13-22 22-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

132	1 2 3	0-12 12-23 23-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
133	1 2 3	0-13 13-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
134	1 2 3	0-12 12-24 24-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
135	1 2 3	0-10 10-27 27-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
136	1 2 3	0-7 7-27 27-40	rootmat,leaves,humus GrLo,gravel GrLo,gravel	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
137	1 2 3	0-7 7-20 20-23,rocks	rootmat,leaves,humus GrLo,gravel GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
138	1 2 3	0-9 9-24 24-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
139	1 2 3	0-9 9-35 35-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
140	1 2 3	0-8 8-25 25-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
141	1 2 3	0-8 8-23 23-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
142	1 2 3	0-11 11-24 24-38	rootmat,leaves,humus GrLo,gravel GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
143	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
144	1 2	0-12 12-27	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM

	3	27-39	GrLo	10YR5/8	В	NCM
145	1 2 3	0-13 13-22 22-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
146	1 2 3	0-10 10-18 18-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
147	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
148	1 2 3	0-12 12-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
149	1 2 3	0-10 10-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
150	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
151	1 2 3	0-14 14-17 17-rocks	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
152	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
153	1 2 3	0-12 12-28 28-40	rootmat,leavls,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
154	1 2 3	0-12 12-31 31-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
155	1 2 3	0-13 13-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
156	1 2 3	0-12 12-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
157	1 2 3	0-12 12-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

158	1 2 3	0-13 13-26 26-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
159	1 2 3	0-13 13-34 34-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
160	1 2 3	0-14 14-26 26-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
161	1 2 3	0-13 13-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
162	1 2 3	0-13 13-29 29-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
163	1 2 3	0-15 15-27 27-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
164	1 2 3	0-13 13-29 29-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
165	1 2 3	0-13 13-28 28-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
166	1 2 3	0-14 14-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
167	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
168	1 2 3	0-12 12-32 32-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
169	1 2 3	0-13 13-26 26-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
170	1 2 3	0-12 12-26 26-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

171	1 2 3	0-12 12-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
172	1 2 3	0-12 12-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
173	1 2 3	0-12 12-19 9-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
174	1 2 3	0-12 12-33 33-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
175	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
176	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
177	1 2 3	0-10 10-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
178	1 2 3	0-10 10-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
179	1 2 3	0-12 12-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
180	1 2 3	0-12 12-26 26-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
181	1 2 3	0-13 13-26 26-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
182	1 2 3	0-7 7-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
183	1 2 3	0-7 7-17 17-bedrock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM

184	1 2 3	0-4 4-12 12-20,rock	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
185	1 2 3	0-8 8-19 19-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
186	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
187	1 2 3	0-6 6-16 16-26	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
188	1 2 3	0-8 8-28 28-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
189	1 2 3	0-13 13-24 24-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
190	1 2 3	0-14 14-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
191	1 2 3	0-9 9-31 31-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
192	1 2 3	0-8 8-24 24-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
193	1 2 3	0-9 9-20 20-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
194	1 2 3	0-9 9-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
195	1 2 3	0-12 12-30 30-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
196	1 2 3	0-13 13-29 29-48	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

197	1 2 3	0-13 13-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
198	1 2 3	0-13 13-25 25-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
199	1 2 3	0-13 13-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
200	1 2 3	0-12 12-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
201	1 2 3	0-14 14-28 28-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
202	1 2 3	0-12 12-30 30-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
203	1 2 3	0-13 13-28 28-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
204	1 2 3	0-10 10-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
205	1 2 3	0-7 7-26 26-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
206	1 2 3	0-13 13-33 33-44	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
207	1 2 3	0-13 13-29 290-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
208	1 2 3	0-14 14-28 28-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
209	1 2 3	0-13 13-28 28-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

210	1 2 3	0-13 13-26 26-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
211	1 2 3	0-12 12-28 28-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
212	1 2 3	0-13 13-25 25-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
213	1 2 3	0-13 13-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
214	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
215	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
216	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
217	1 2 3	0-14 14-30 30-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
218	1 2 3	0-13 13-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
219	1 2 3	0-13 13-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
220	1 2 2	0-13 13-24 24-34	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
221	1 2 3	0-7 7-25 25-36	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
222	1 2 3	0-6 6-22 22-34	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM

223	1 2 3	0-6 6-24 24-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
224	1 2 3	0-7 7-28 28-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
225	1 2 3	0-6 6-26 26-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
226	1 2 3	0-7 7-27 27-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
227	1 2 3	0-9 9-24 24-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
228	1 2 3	0-7 4-21 21-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
229	1 2 3	0-9 9-20 20-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR4/2	A/O A A	NCM NCM NCM
230	1 2 3	0-5 5-22 22-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
231	1 2 3	0-6 6-17 17-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
232	1 2	0-6 6-bedrock	rootmat,leaves,humus		A/O	NCM
233	1 2 3	0-8 8-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
234	1 2 3	0-9 9-25 25-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
235	1 2 3	0-9 9-25 25-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
236	1	0-9	rootmat,leaves,humus		A/O	NCM

237	2 3 1 2 3	9-24 24-37 0-10 10-28 28-38	GrLo GrLo rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8 10YR4/2 10YR5/8	A B A/O A B	NCM NCM NCM NCM NCM
238	1 2 3	0-8 8-18 18-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
239	1 2 3	0-6 6-15 15-27	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
240	1 2 3	0-5 5-12 12-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
241	1 2 3	0-9 9-25 25-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
242	1 2 3	0-9 9-24 24-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
243	1 2 3	0-10 10-23 23-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
244	1 2 3	0-10 10-25 25-36	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
245	1 2 3	0-10 10-20 20-rocks	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
246	1 2 3	0-14 14-20 20-rocks	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
247	1 2 3	0-13 13-25 25-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
248	1 2 3	0-13 13-26 26-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
249	1 2 3	0-12 12-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

250	1 2 3	0-12 12-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
251	1 2 3	0-2 2-12 12-21	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
252	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
253	1 2 3	0-12 12-31 31-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
254	1 2 3	0-13 13-32 32-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
255	1 2 3	0-13 13-26 26-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
256	1 2 3	0-12 12-32 32-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
257	1 2 3	0-13 13-30 30-41	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
258	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
259	1 2 3	0-12 12-29 29-39	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
260	1 2 3	0-13 13-30 30-41	rootmat,leave,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
261	1 2 3	0-12 12-22 22-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
262	1 2 3	0-14 14-33 33-45	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

263	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
264	1 2 3	0-12 12-27 27-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
265	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
266	1 2 3	0-13 13-28 28-38	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
267	1 2 3	0-13 13-25 25-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
268	1 2 3	0-13 13-22 22-32	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
269	1 2 3	0-9 9-27 27-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
270	1 2 3	0-8 8-17 17-29	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
271	1 2 3	0-9 9-20 20-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
272	1 2 3	0-9 9-22 22-32	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
273	1 2 3	0-8 8-19 19-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
274	1 2 3	0-8 8-20 20-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
275	1 2 3	0-8 8-22 22-32	rootmat,leaves,humus GrLo GrLo,wet	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

276	1 2 3	0-8 8-25 25-37	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
277	1 2 3	0-8 8-21 21-rock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
278	1 2 3	0-9 9-18 18-31	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
279	1 2 3	0-9 9-21 21-32	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
280	1 2 3	0-12 12-22 22-33	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
281	1 2 3	0-13 13-19 19-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
282	1 2 3	0-12 12-20 20-30	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
283	1 2 3	0-13 13-21 21-35	rootmat,leaves,humus GrLo,wet GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
284	1 2 3	0-13 13-25 25-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
285	1 2 3	0-12 12-32 32-44	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
286	1 2 3	0-13 13-31 31-43	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
287	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
288	1 2 3	0-12 12-32 32-42	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

289	1 2 3	0-13 13-26 26-36	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
290	1 2 3	0-3 3-22 22-32	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
291	1 2 3	0-13 13-23 23-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
292	1 2 3	0-13 13-22 22-32	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
293	1 2 3	0-9 9-13 13-28	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
294	1 2 3	0-8 8-18 18-bedrock	rootmat,leaves,humus GrLo,wet	10YR4/2	A/O A	NCM NCM
295	1 2 3	0-12 12-24 24-34	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
296	1 2 3	0-12 12-16 16-bedrock	rootmat,leaves,humus GrLo	10YR4/2	A/O A	NCM NCM
297	1 2 3	0-13 13-30 30-40	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
298	1 2 3	0-13 13-26 26-36	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM
299	1 2 3	0-9 9-22 22-35	rootmat,leaves,humus GrLo GrLo	10YR4/2 10YR5/8	A/O A B	NCM NCM NCM

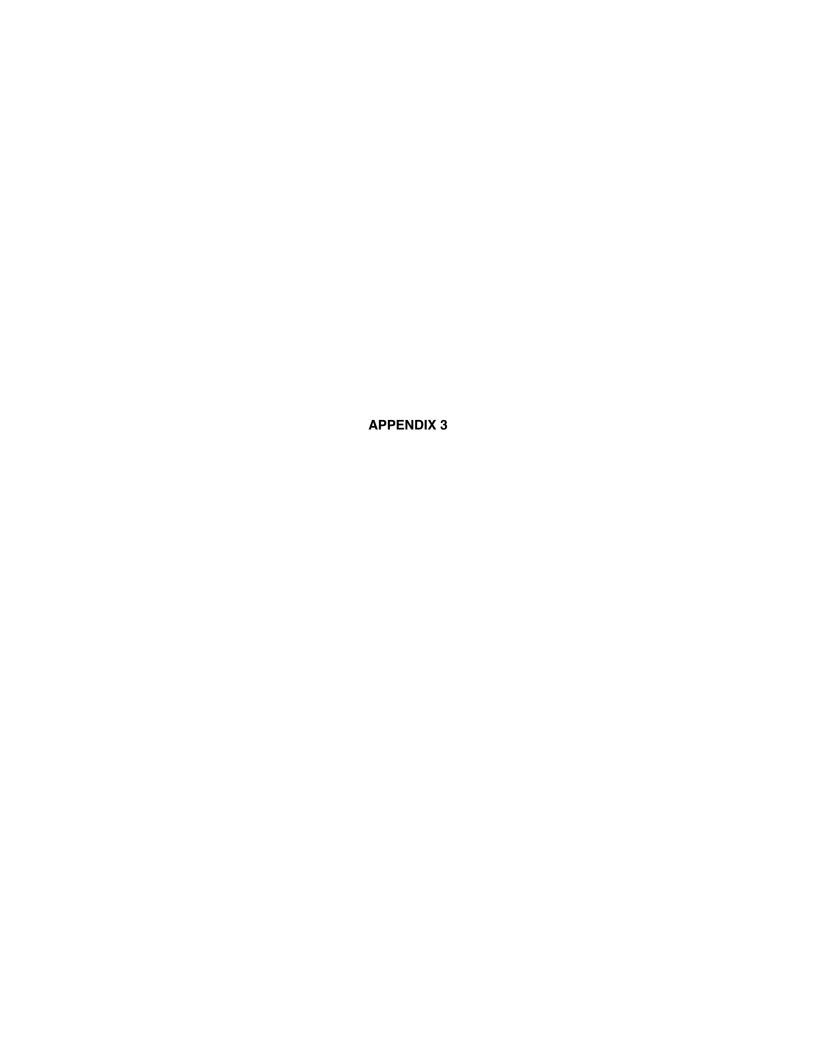


Table of Map Documented Structures

Location	MA	On or Adjacent to Project Area	Owner	Eco-niche	Comments
north side of Laroe Rd. west of Walton Lake/Lakes Rd.	1850	adjacent	J. Gray	agricultural	Fig. 6
same as above	1875	on	na	agricultural	Fig. 7
same as above	1908	on	na	rural	Fig. 8